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ABSTRACT

These conference proceedings contain the following 23 presentations: "Development of a Communication Skill Model Using Interpretive Structural Modeling" (Karen S. Nantz and Linda Gammill); "The Coincidence of Needs: An Inventional Model for Audience Analysis" (Gina Burchard); "A Computer Algorithm for Measuring Readability" (Terry D. Lundgren); "If Managers Must Write, Management Students Must Write" (Shirley Kuiper and Cheryl M. Luke); "Communication Effectiveness of Organizational Mission Statements" (Daniel S. Cochran and Fred R. David); "Readability and Effectiveness of Cancer Information Pamphlets, a Preliminary Assessment" (Shirley Kuiper); "Communicating Image in Annual Reports: Has Creative Writing Eliminated Differences?" (Larry R. Smeltzer and Fred G. Stickels); "How Will We Edit Electronically Transmitted Text?" (David K. Farkas); "Ethical Decision Making as a Management Imperative for Organizational Communication" (Phillip V. Lewis and John E. Timmerman); "Using an Interview-Based Approach to Diagnosing Functional Organization Problems" (James H. Conley and P. Nick Blanchard); "Crisis Communication: How to Handle Bad News" (James A. Crapko); "An Investigation of the Environmental Scanning Habits of Managers" (J. Lynn Johnson and Ralph Kuehn); "Storyboarding and Group Writing: Preliminary Findings" (Michael B. Goodman); "Minority Managers/Executives--Their Perceptions of Business Communication" (Herbert W. Hildebrandt); "Collaborative Learning in the Business Writing Classroom" (G. Douglas Meyers); "Teaching Future Managers How to Teach Business Communication Skills" (Charles M. Vance); "Teaching International Business Communication: A Review and Critique" (Gary F. Kohut and Carol M. Baxter); "Business Graduates' Perceptions of Responsibilities for Communication Skills Development: Implications for Instruction" (James Calvert Scott and Carol A. Lundgren); "How Much Grammar Is Enough?" (Michael J. Herrick); "Can Students with Low Grammar Competency Learn Technical Writing Skills?" (Jill Austin, Daniel S. Cochran, Danny R. Arnold); "What You Say Affects How You Say It: Sentence Structure" (Margaret Ann Baker, Patricia Ann Pearson, Sam L. Graham); "A Developmental Training Approach to the MBA Communication Skills Program" (Marcy L. Krugal); and "Program in Business Communication at the University of Texas at Austin: a Pre-Test-Post-Test and Experimental-Control Group Analysis of the Personnel Department's Training" (James D. Bell and Deborah Kerr). (YLB)

PROCEEDINGS

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TRAVEL
IN
TIME
TIME
TIME
TIME
TIME
TIME

Tradition
To
Technology

50th ANNIVERSARY MEETING

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1985 ABC INTERNATIONAL CONVENTION

- Sam J. Bruno, Co-Editor
- John D. Pettit, Jr., Co-Editor

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PREFACE

Probably the most substantive business communication efforts take place at the annual conference of the Association for Business Communication. This year's meeting in Chicago is no exception. The program includes thoughtful, comprehensive, and insightful commentaries and expositions on business communication, communication research and business communication education.

"Travel in Time: Tradition to Technology" is the appropriate theme for the 1985 Fall Conference, which coincides with ABC's fiftieth anniversary. The concern with realism and changes in business communication and business communication education are mirrored in the variety and depth of papers contained in this volume--a concern which researchers and educators share with respect to implications for today and in the future.

The discussions includes a kaleidoscope of topics ranging from computer algorithm for measuring readability, to communicating image in annual reports, to graduates' perceptions of responsibilities for communication skills to ethical decision-making as a management imperative for organizational communication, to how much grammar is enough, to a theoretical basis for functional diagnosis of organizational problems. A number of intriguing research techniques are presented as well as familiar methodology to new business communication problems.

The order of appearance of articles in these proceedings does not correspond to that of the conference program. The order chosen reflects our best efforts at creating coherence from the great diversity of titles.

Following the models and measurements of business communication in Part I, the articles in Part II are devoted to evaluating communication techniques. Part III sweeps across the broad areas of communication and management. A particularly interesting contribution in this area is the use of an interview based approach to diagnosing functional organization problems. Part IV is a representative sample of curriculum implications for business communication, including a discussion on collaborative learning in the business writing classroom and teaching international business communication.

The articles in Part V are indicative of business communication concerns for grammar and style, which discuss how much grammar is enough, the relationship between diagnostic test scores, and students' ability to improve their letter-writing skills. The application of the sentence-combining approach is only one example which demonstrates the research opportunities in business communication. Part VI, finally, deals with training and development.

Our task as editors was exceedingly interesting, sometimes trying, and always challenging. Also, our editing of these proceedings would not have been possible had it not been for the help of many individuals. Aside from the obvious contribution on the part of those whose papers are included in this volume, thanks must go to the referees who spent an inordinate amount of time and talent evaluating 72 papers of which 23 were selected for these proceedings. It was only through the referees' dedication and tireless effort this work was possible. Please join us in acknowledging the contribution of the following referees:

1. John L. Di Gaetani, Hofstra University
2. Raymond J. Lesikar, North Texas State University
3. John M. Penrose, The University of Texas-Austin
4. Iris I. Varner, Illinois State University
5. Gretchen N. Vik, San Diego State University

Our special gratitude goes to our Deans, William A. Staples, University of Houston-Clear Lake, and Jay Smith, North Texas State University, for providing financial support that was critical in completing these proceedings.

To Mary Jo Westover, just saying "thank you" does not seem to be enough for the energy and effort she devoted to this project. Mary Jo proofread the manuscript and assisted in organizing and coordinating the materials, which she accomplished with her usual efficiency. We also express our thanks to Sam's loyal and dedicated secretary, Jean Hart, for her help in removing all identifying marks from papers that were reviewed, preparing correspondence, taking messages, and answering questions about these proceedings.

Throughout this process, it was our intention to make this publication a worthy one for members of the Association for Business Communication. We hope we have done just that!

Sam J. Bruno

John D. Pettit, Jr.

Houston/Denton, Texas
October, 1985

Editors

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PART I
MODELS AND MEASUREMENTS OF BUSINESS COMMUNICATION

DEVELOPMENT OF A COMMUNICATION SKILL MODEL USING INTERPRETIVE STRUCTURAL MODELING

Karen S. Nantz, University of Northern Iowa
Linda Gammill, University of Northern Iowa

ABSTRACT

The problem of the study was to develop a hierarchical model of communication skills needed by college graduates as perceived by collegiate recruiters. Recruiters representing the disciplines in the School of Business at the University of Northern Iowa used Nominal Group Technique to answer the question "In your opinion, what is the optimum set of communication skills your company wants from college graduates coming into the job market?" Interpretive Structural Modeling was used to prioritize the 25 skills identified. The research yielded a 9-level model of 6 written, 9 oral, and 10 personal skills.

INTRODUCTION

Business communication teachers have been inundated with suggestions from the literature about what should be taught in their classes. Many of the suggestions have concentrated on establishing where the emphasis should be placed in teaching written communications; that is, should more memos and less reports be taught. Recently, however, the literature suggests that some of the communication skills have been neglected. La Conte notes, for example, that message compression, kinesics, information synthesis, and rapid analysis and evaluation of message validity are skills needed, but not being currently taught [6]. Inacker suggests, "While the literature, which is for the most part empirical, has been well intended and helpful for many teachers of the subject, it has also contributed to a state of confusion and frustration for others[5]."

One of the drawbacks of past communications research has been to clarify the labels attached to certain types of communication skills. What constitutes a memo? Where does one draw the line between a memo and a memo report? Also, many studies have not forced respondents to prioritize communication skills. As a result, virtually all types of skills have been cited as being important. This lack of prioritizing has created a preponderance of skills to be included in student preparation. Thus, the business communication teacher is faced with either picking and choosing or trying to cover all communication skills by superficially teaching many topics.

Clearly, if a model of communication skills could be developed which interrelates all types of skills, then the hierarchy could serve as a basis for communication instruction.

This study originated from discussions with collegiate recruiters during annual recruiting fairs at the University of Northern Iowa. Recruiters commented that students had fantastic resumes but lacked broad communication skills for the range of communication situations they would face. The researchers believed that if recruiters could identify and prioritize the communication skills which they believed were important, then curricula could be adopted to emphasize the more important elements. Such a model could impact not only initial hiring, but also employee promotion and corporate training programs. The problem of this study was to develop a hierarchical model of communication skills needed by college graduates as perceived by collegiate recruiters. Nominal Group Technique (NGT) and Interpretive Structural Modeling (ISM) were used to develop the model.

METHODOLOGY

Nominal Group Technique

NGT is a small-group, problem-solving technique used to produce a final set of elements ranked in a particular relational order. NGT uses a 4-step process to create the final element set: 1) Silent Generation; 2) Round Robin; 3) Discussion/Clarification of Elements; and 4) Prioritizing of Element List.

In Step 1, Silent Generation, a small group is asked to silently and independently generate a written list of key elements in response to a particular question or concern. Research indicates that the silent generation process generates a higher quality, greater quantity, and variety of elements than interacting or brainstorming groups [11:210].

In Step 2, the Round-Robin phase, a total set of elements is created by a very structured sharing of ideas. Each member is asked to provide one idea from his/her private list which is written on a flip chart by a recorder in full view of the other members. Then, the next member is asked to provide one of his/her ideas and it is recorded. This round-robin recording continues until all members' ideas are recorded. At this second step, no discussion is allowed.

This "recorded round-robin" procedure facilitates self-disclosure of ideas (especially important for encouraging equal participation from less aggressive members of the group) and decreases argumentation over semantics [11:209].

In Step 3, the Clarification phase, an interacting group process is used to stimulate members to consider other dimensions of the problem and to define each element in the set [11:209]. The total set of elements generated in Step 2 is displayed before the group to help avoid the loss of critical items.

The result of the clarification phase is a refined set of elements with definitions.

In the final step, Prioritizing of the Element Set, the group rearranges each element into a particular order depending on the relationship desired. Normally, the groups comes to a consensus or if there is dissension, a vote is taken.

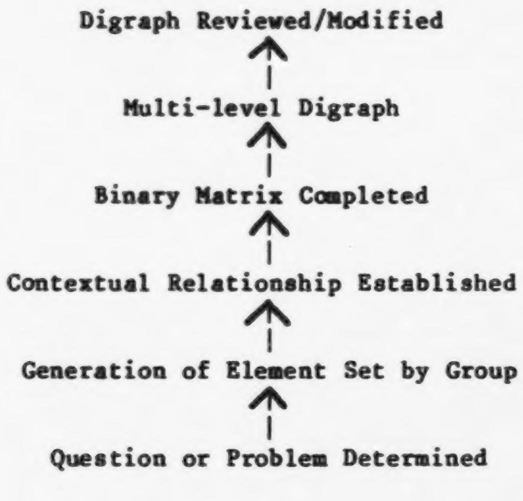
Many different techniques can be used to complete this phase. When a complex problem with many elements is being considered, one of the most useful techniques is Interpretive Structural Modeling (ISM).

Interpretive Structural Modeling

ISM is a decision-making tool used for understanding the relationships among numerous elements. It was developed by Dr. John N. Warfield (formerly of Battelle Memorial Institute) in the early 1970's based on an earlier work by Hanary and Cartwright [3]. ISM is based on a binary matrix and a graphic representation of the matrix in the form of a digraph (directed graph). Either manually or with the aid of a computer, logical operations are performed based on a generated element set and a contextual relationship. The element set is usually determined by a nominal group who respond to a predetermined problem or question. Based on group decisions, a digraph showing the relationships among the various elements is generated. Figure 1 shows the sequence of an ISM session.

FIGURE 1

SEQUENCE OF NGT/ISM ACTIVITIES


Digraph Reviewed/Modified
Multi-level Digraph
Binary Matrix Completed
Contextual Relationship Established
Generation of Element Set by Group
Question or Problem Determined

To illustrate ISM, consider an element set of four numbers (34, 84, 76, 19) and a relationship "comes before." ISM considers the relationship of element pairs by asking a question such as "Does 34 come before 84?" Based on the decision, a binary matrix is completed. The binary matrix representation for this example is shown in Figure 2.

FIGURE 2

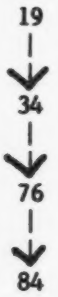
EXAMPLE OF STRUCTURAL RELATIONSHIPS IN MATRIX FORM

	34	84	76	19
34	1	1	1	0
84	0	1	0	0
76	0	1	1	0
19	1	1	1	1

The binary matrix is useful from a mathematical standpoint, but it is difficult to apply. Thus, a computer program for ISM exists which converts the matrix to a multilevel digraph showing a set of vertices (elements) connected by directional lines. Figure 3 illustrates the digraph generated from the matrix in Figure 2.

FIGURE 3

DIGRAPH GENERATED FROM MATRIX 2



Although the value of this simple example may appear negligible, in a problem with many complex, related elements, understanding the relationships among elements is greatly simplified. For example, in a 15-element set, there are approximately 1.3 trillion ways to order the elements (not including multiple elements on one level) [12:105]. ISM allows simplicity among the complex issues because only two elements are considered at one time.

Once the digraph is completed, the model is reviewed by participants. Warfield in Societal Systems discusses the need to examine the initial structure from three different considerations: the interpretability and accuracy of the model and the desirability of supplementary models [15].

PROCEDURES

Participants were chosen in consultation with Dr. Larry Routh, UNI Placement Director. Seven persons were invited to participate; three males and four females agreed to participate. An attempt was made to include all of the disciplines represented within the School of Business at the University of Northern Iowa. Recruiters represented retailing, manufacturing, banking, insurance, and government. (Accounting and an additional manufacturing firm were unable to attend due to last-minute scheduling problems.) See Appendix 1 for demographic information on participants.

At the beginning of the 2-day session, the researchers reviewed the objectives of the research project with the recruiters, introduced the concepts of NGT and ISM, and reviewed the recruiters' roles in each of the procedures.

When the recruiters indicated they were comfortable with the process, the researchers began the NGT procedures.

Step 1 -- Silent Generation

The recruiters were asked to generate a list of elements in response to the question:

> "In your opinion, what is the optimum set of communication skills your company wants from college graduates coming into the job market?"

The recruiters were given a sheet of paper with this question on it to generate the elements. When the recruiters indicated to the researchers they had completed this phase, Step 1 was finished. Step 1 took about 10 minutes. Each recruiter generated between 20-35 elements.

Step 2 -- Round Robin

In a round-robin recording, each member was asked to present one idea from his/her list. The idea was recorded on a flip chart using the words used by the member. Then, the next member was asked to present one idea from his/her list, and the idea was recorded on the flip chart. This procedure was repeated until all members' ideas were recorded. The flip-chart pages were then displayed so all elements were clearly visible to all members of the group.

During this phase, members were encouraged to add elements to their lists if another member's element invoked another element that had not been recorded. Discussion on definition of elements or combining of elements in this phase was not allowed. Step 2 took about 1 hour.

The original list of elements generated by the recruiters is listed below.

FIGURE 4

ORIGINAL LIST OF ELEMENTS*

1. strong writing skills
2. short, clear, concise memos
3. reports
4. letters
5. ability to communicate on different levels (socio-economic)
6. empathy - ability to see problem from another perspective
7. listen
8. observe
9. good social sense
10. persuasive oral communication skills
11. problem solving
12. active listener
13. honest (no b.s.)
14. handle controversy tactfully and diplomatically
15. articulate and comfortable in social/professional setting
16. ability to follow chain of command
17. apply what they have learned in real-world application
18. good face-to-face communication
19. aware of what body is doing (habits, reactions, telegraphing)
20. good clear explanations
21. presentation skills (oral-large and small)
22. knowledge (subject matter communication)
23. when to use jargon
24. ability to think
25. reasoning of complex situations
26. ability to explain complex situations
27. risk-taker (know when to take)
28. gear communication to audience
29. open — not defensive
30. good attention span
31. good speller
32. good paragrapher
33. appropriate use of English language and grammar
34. direct simple language
35. assertive, not aggressive
36. marketing writing (creative, sparkles)
37. ability to teach
38. understands relationship between verbal and nonverbal
39. patience — strives to create understanding (conversation resolution)

40. selling skills
41. preference for 2-way (face-to-face) communications
42. persuasive writing skills
43. objective
44. phone skills

*Verbatim wording from recruiters.

Step 3 -- Discussion/Clarification of Elements

In the clarification phase, the entire list of elements was reviewed and as elements were refined, definitions were generated.

In reviewing the list of elements, the recruiters determined that the elements fell into three major categories: oral communication skills, written communication skills, and personal communication skills. Personal communication skills were defined as skills being brought to the communication setting.

Before beginning the definition stage, the recruiters grouped each element into one of the three categories. The recruiters then began discussing, clarifying, and defining elements in each group. They were encouraged to thoroughly explain reasons for eliminating elements, combining of duplicate/identical elements, or splitting of elements into more specific elements. At several points in this discussion, the group used the dictionary to help them better define particular elements.

At the end of the first day, Step 3 was completed. The refined list of elements with definitions is reflected in Figure 5 and formed the basis of the ISM procedures used in day two. The first three steps took approximately seven hours.

ISM

Day two began with each element identified by the recruiters being assigned a number from 1 to 25. These 25 elements were entered into a Burroughs 21 microprocessor using software developed by Battelle Institute and adapted to the Burroughs by the programming staff at the University of Northern Iowa.

To develop the structure, the group was asked to come to a consensus of yes or no to the question:

Is Element X R Element Y?

R was the contextual relationship "more important than" which was predetermined by the researchers. As an example, using elements generated during this project, participants were asked "Is the ability to gear oral communications to the audience (element 8) more important than the ability to explain complex situations orally (element 9).

Because the computer made inferences based on the responses of the participants, a total of 238 questions were asked to complete the 25 x 25 matrix. One researcher entered decisions at the computer terminal; the other facilitated discussion, brought the group to a consensus, and kept track of the vote. Diverse discussion on a particular question or any close votes were noted and discussed when the structure was reviewed.

The researchers then transferred elements onto 5 x 8 cards so that the digraph could be mapped on the wall with the directional arrows. Each communication skills area was represented by a different colored card so that participants could see not only the relationships among elements, but also among element groups.

Participants then discussed the model in view of interpretability, accuracy, and the need for additional elements or edges. (See Warfield sources listed in bibliography for discussion of specifics of ISM models.) Recruiters felt the structure was accurate and no further elements were needed.

RESULTS

The result of the project was the ISM model shown in Figure 5. The model consists of 25 elements (6 written, 9 oral, and 10 personal) stratified into 9 levels of importance. Level 1 is more important than Level 2 and so on.

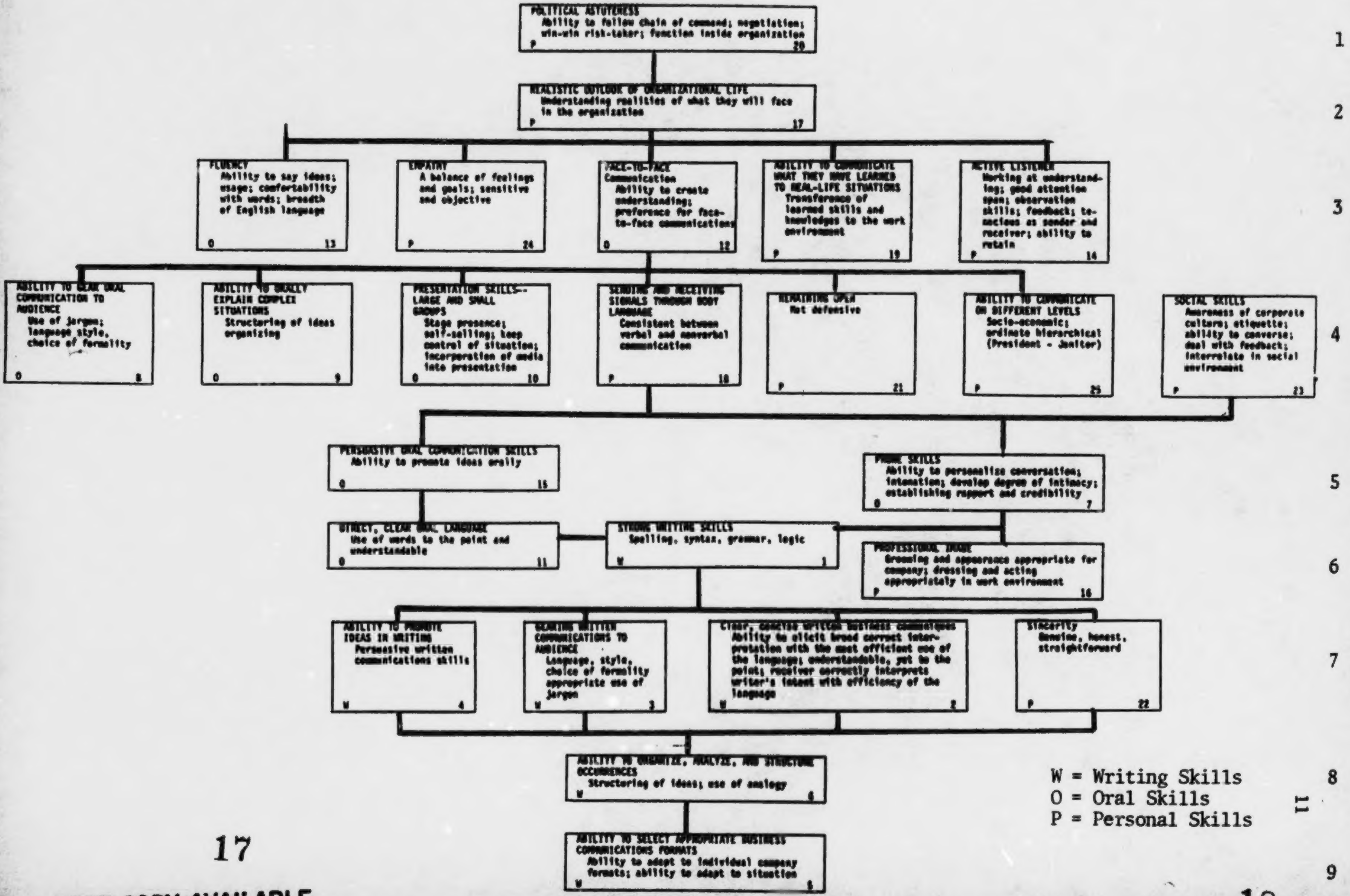
A closer analysis of the elements, element groups, and their relationships reveals some interesting considerations for communications teaching. Numbers in parentheses indicate element numbers.

Written Communication Elements

All writing elements are found on the lower four levels of the model with five of the six written elements appearing in Levels 7-9. Among the writing elements, the need for strong basic writing skills was judged to be most important. The hierarchy of the written skills (from most to least important) included:

1. strong writing skills—comfort with language usage (spelling, grammar, syntax, logic, etc.) (1)
2. controlling the writing situation—audience analysis, word choice, achieving anticipated results. (2,3,4)
3. organizing and structuring to promote ideas. (6)
4. formatting—deciding on a format appropriate for the situation. (5)

Figure 5
COMMUNICATION SKILLS MODEL


POLITICAL ASTUTENESS
Ability to follow chain of command; negotiation; win-win risk-taker; function inside organization
P 20
REALISTIC OUTLOOK OF ORGANIZATIONAL LIFE
Understanding realities of what they will face in the organization
P 17
FLUENCY
Ability to say ideas; usage; comfortability with words; breadth of English language
O 13
EMPATHY
A balance of feelings and goals; sensitive and objective
P 24
FACE-TO-FACE Communication
Ability to create understanding; preference for face-to-face communications
O 12
ABILITY TO COMMUNICATE WHAT THEY HAVE LEARNED TO REAL-LIFE SITUATIONS
Transference of learned skills and knowledges to the work environment
P 19
ACTIVE LISTENER
Working at understanding; good attention span; observation skills; feedback; tenacious as sender and receiver; ability to retain
P 14
ABILITY TO GEAR ORAL COMMUNICATION TO AUDIENCE
Use of jargon; language style, choice of formality
O 8
ABILITY TO ORALLY EXPLAIN COMPLEX SITUATIONS
Structuring of ideas organizing
O 9
PRESENTATION SKILLS--LARGE AND SMALL GROUPS
Stage presence; self-selling; keep control of situation; incorporation of media into presentation
O 10
SENDING AND RECEIVING SIGNALS THROUGH BODY LANGUAGE
Consistent between verbal and nonverbal communication
P 18
REMAINING OPEN
Not defensive
P 21
ABILITY TO COMMUNICATE ON DIFFERENT LEVELS
Socio-economic; ordinate hierarchical (President - Janitor)
P 25
SOCIAL SKILLS
Awareness of corporate culture; etiquette; ability to converse; deal with feedback; interrelate in social environment
P 23
PERSUASIVE ORAL COMMUNICATION SKILLS
Ability to promote ideas orally
O 15
PHONE SKILLS
Ability to personalize conversation; intonation; develop degree of intimacy; establishing rapport and credibility
O 7
DIRECT, CLEAR ORAL LANGUAGE
Use of words to the point and understandable
O 11
STRONG WRITING SKILLS
Spelling, syntax, grammar, logic
W 1
PROFESSIONAL IMAGE
Grooming and appearance appropriate for company; dressing and acting appropriately in work environment
P 16
ABILITY TO PROMOTE IDEAS IN WRITING
Persuasive written communications skills
W 4
GEARING WRITTEN COMMUNICATIONS TO AUDIENCE
Language, style, choice of formality appropriate use of jargon
W 3
Clear, concise written business communiques
Ability to elicit broad correct interpretation with the most efficient use of the language; understandable, yet to the point; receiver correctly interprets writer's intent with efficiency of the language
W 2
Sincerity
Genuine, honest, straightforward
P 22
ABILITY TO ORGANIZE, ANALYZE, AND STRUCTURE OCCURRENCES
Structuring of ideas; use of analogy
W 6
ABILITY TO SELECT APPROPRIATE BUSINESS COMMUNICATIONS FORMATS
Ability to adapt to individual company formats; ability to adapt to situation
W 5
1
2
3
4
5
6
7
8
9
W = Writing Skills
O = Oral Skills
P = Personal Skills

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Interestingly, the format of the communications ranked last. The recruiters felt that a format could be easily corrected, but basic language skills could not.

Oral Communication Elements

The oral communication elements dominate the middle portion of the model (Levels 3-6) and relate to the relationship between sender and receiver. All oral elements were identified as more important than the written communication skills except element 11 (direct, clear oral language) which ranked as important as the most important written element (1). The placement of the oral elements emphasizes the strong feelings of the recruiters for development of good oral skills. The recruiters' contention was that written communiques could be edited; and, therefore, the opportunity existed to correct mistakes. The same editing was not possible in the oral environment.

The hierarchical structure of the oral elements revealed by the model included:

1. fluency—comfortability with words; breadth of the English language. Note that this skill was important in both written and oral structure. (13)

   and

   a preference for using face-to-face communication over other forms of communication. The recruiters felt that once employees were comfortable with oral communications, they would prefer face-to-face over other types. (12)

2. analysis of oral situation—adapting to audience, word choice, etc. This element compares to element 6 in the written skills. This level also included the ability to control an oral situation. (8, 9, 10)

3. persuasive oral skills (including phone skills)—refining of language, organization, and especially voice communication without visual context. (7,15) Again, recruiters insisted that the ability to persuade, to size up a nonvisual situation was important. The recruiters in retailing thought this to be essential.

4. direct, clear language—basic skills. (11)

Personal Communication Elements

Personal skills are those skills brought to the communication environment that would have an influence on the success or failure of the communication process. These elements dominate the top three levels of the structure and can be applied to both written and oral communication situations. They demonstrate the success of the individual's adaptation to an organizational environment.

The hierarchical structure of the personal elements was:

1. political astuteness—the ability to follow both formal and informal communication channels in the organization. Political astuteness is not only the most important personal skill, but also the most important element in the model (20). One recruiter gave an example of a new employee writing the chairman of the board to suggest a complete overhaul of the distribution system without following proper channels. The consensus was that the employee, due to lack of political astuteness, had killed any chance of success in the organization.

2. realistic outlook on organizational life—understanding the time frame of a career and career moves; understanding that the reward system within an organization is different than the reward system in school (17). This element is reflective of the student's ability to make the transition from student to employee. This element was originally labelled "patience" by the recruiters.

3. applying past experiences and educational training to the particular organization in which one is working and being an empathetic and active communicator (14, 19, 24). Recruiters noted that students need practice in applying "book learning." Using case analysis to a greater extent was suggested.

4. appropriate interpretation and communication of body language. Body language (18) was considered a personal skill because it is nonverbal. Recruiters suggested that students practice body language skills so mixed signals are not sent. The ability to remain open and not defensive (21) also was included on this level.

5. professional image—the physical projection of one's self and the ability to project the organization (16). This element was the least important of the personal skills because the recruiters felt that image without substantial communication skills was much harder to correct by the hiring organization than substantial communication skills without professional image.

The only skill which did not fit neatly in the structure was Element 23 (social skills). It is placed adjacent to level 4 because it was judged more important than Levels 5-9. It is not, however, less important than Levels 1-3. The recruiters had difficulty deciding where social skills belonged. A post-project questionnaire was distributed to determine if the element should remain at Level 4 or be moved up. All respondents felt it was properly placed at Level 4. The researchers believe that this skill merits additional research.

CONCLUSIONS AND RECOMMENDATIONS

Based on an analysis of the model, the researchers make the following conclusions and recommendations:

1. All the elements identified in the model are important. The importance of the model is the prioritizing and interrelatedness of the 25 elements.

2. All the elements cannot and should not be restricted to a business communications class. Time constraints would not allow even casual teaching of all elements. However, the emphasis should be placed on the integration of these elements into all areas of the business curriculum. The approach to integration needs to be systematic. Even core courses could benefit from element inclusion.

3. Business communication instruction has emphasized written communication skills more than oral or personal skills. Although written skills are important, the amount of emphasis placed on them should be examined.

4. More time needs to be spent on refining writing skills rather than on formats and letter and report types. Business communications textbooks especially perpetuate the emphasis on formats.

5. Communication instruction needs to be broadened to include oral fluency. Recruiters felt that fluency can be developed through various oral exercises to varied audiences. Other skills included listening, body language analysis, voice communications (phone, teleconferencing) and especially persuasive and extemporaneous speaking. Students should be forced to give "non-canned" presentations frequently. One recruiter called this "the ability to think on their feet."

6. Oral and written skills are important at the entry level, but personal skills most greatly influence promotability. Extensive use of case analysis, more interaction with the business community throughout college, and more rigor in the classroom were all suggested as ways to refine personal skills.

Overall, both recruiters and the researchers were pleased with the model. Both groups were surprised at the high placement of personal skills. The researchers expected writing skills to place high in the structure based on the past literature. The recruiters commented that the NGT/ISM process had helped them rethink their own hiring and training practices. The recruiters agreed unanimously that the two-day project was exhilarating and exhausting.

ISM is intense yet allows for group interaction and levity. The casual atmosphere fosters group discussion and ultimately enhances the quality of the model. The group feels a keen sense of accomplishment not present in other research methodologies.

Since ISM may be unknown to most readers, several sources are listed in the bibliography that explain the philosophical and mathematical foundations. The Malone reference especially is a good introduction to ISM.

Funding for this project was received from the University of Northern Iowa Graduate College and the University of Northern Iowa School of Business.

Appendix 1

DEMOGRAPHIC INFORMATION ON PARTICIPANTS

Name and Title	Company	Company Description*	Years Recruiting Experience	Recruiting Area	Employees	Number of New College Graduates Hired in 1984
Lorraine Kennedy, Manager, College Relations	Payless Cashways Inc.	Specialty retailer of home building materials; 1.2 billion in sales, 30% compound growth rate over last 10 years	4	Midwest, Southwest, West Coast	12,500	140
Roxanne Hori, Second Vice President for Human Resources	Northern Trust Company	A Chicago-based money center bank with 6 billion in assets; one of top trust companies in country.	8	Midwest, Northeast, Southeast	4,000	60-70
Tom Flanders, Manager of Training and Development	Rolscreen Company	Manufacturer of Pella windows and doors.	5	Central U.S.	2,100	20
Kris Jensen, College Relations Administrator	The Bankers Life Company	National multi-line mutual insurance company ranked 7th in premium income and 10th in assets of 2500 companies.	2	Midwest	7,800	157
Pamela Spain, Personnel Specialist	Black Hawk County, Iowa	Public service employer for residents of the county.	3	Iowa	700	20-25

*Company descriptions were supplied by the recruiters.

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THE COINCIDENCE OF NEEDS: AN INVENTIONAL MODEL FOR AUDIENCE ANALYSIS

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ABSTRACT

This paper describes an inventional model for audience analysis, borrowed from mathematics, that uses set theory to picture the verbal and nonverbal intricacies of a working communication between two individuals with conflicting or corresponding needs within a larger context of organizational procedures and goals. The model provides the theorist with an opportunity to explore some connections between mathematical relationships and analogous problems in purposive communication.

INTRODUCTION: DUALISM IN PROFESSIONAL COMMUNICATION THEORY

Anderson, Brockmann, and Miller, in their introduction to New Essays in Technical and Scientific Communication, characterize technical writing as "aggressively functional [1]." This description seems to preclude Victoria Winkler's hypothesis that the most effective models for teaching technical communication are "inventional" rather than "structural;" that is, they focus on the process of invention rather than on the product of the writing process [6].

Yet the seeming contradiction arises not from confusion on the part of the theorists, but rather from a dualism inherent in the teaching of technical and professional communication. On one hand, professional communication, by its nature pragmatic, is effective only insofar as it achieves practical results, and therefore may be understood, and certainly taught, quite effectively in the context of a "product" orientation and structural models. On the other hand, the organizational nature of professional communication, its necessity of functioning within networks of complex corporate and personal contexts, stretches the limits of structural models and demands at least some attention to process orientation and models of invention. Particularly if teachers of professional writing are to gain from studying the implications of rhetorical and communication theory, they must develop models capable of both analyzing and generating purposive communication, and not just of organizing structure.

PROFESSIONAL COMMUNICATION IS PRAGMATIC

Because of this dualism, the whole issue of communication theory in a pragmatic context can be problematical. Any review of technical writing texts, business writing texts, currently popular composition theory, and classical communication theory reveals that the single most important question to be asked by theorists of professional communication was originally posed in 1949 by Warren Weaver, in his contribution to The Mathematical Theory of Communication: how effectively does the "received meaning," or receiver's understanding of a message, affect conduct [5]? This simple question delineates the issue that dominates most discussions of professional communication today; the issue most critical to emerging technical communication theory; the issue with which all pragmatic communicators are most concerned; that the writing of effective "working" prose must include clear knowledge of what practical effect the communication will have. Simply, writing must be purposive [2].

Indeed, one of the greatest difficulties in isolating theoretical issues for research in professional communication is that the teaching of technical and business writing is inherently pragmatic. Such teaching is the most pragmatic thing an English teacher ever does, as anyone will tell you who has faced a class of twenty or thirty students from different disciplines whose departments have included your course in their degree program only because you or your department head promised that the students would learn to write business letters and memos, information reports, progress reports, "technical exposition," formal and expanded definitions, proposals, job application letters and resumes, technical descriptions of processes and mechanisms, abstracts, technical documentation, formal research reports (all different in concept and structure, according to your textbook), not to mention word processing, graphics, and oral presentations by all students.

Those of us who teach such courses know that there is no such thing as theory and very little formal process, but only product. The closest thing to a principle that a teacher may have time to suggest, or that students from business, engineering, industrial distribution, agricultural economics, polymer science, etc., etc., etc. will accept is that if the writing gets the work done, it is good writing. Few who teach such polyglot courses, or even the fortunate fewer who specialize in graduate-level courses in analytical report-writing or writing for publication will disagree with this maxim, and every successful communication professional in industry considers it his or her own idea.

A PROPOSED MODEL

So communication theory is needed, but it must provide models for teaching that are practical as well as theoretical. This paper will attempt to promote discussion of this need by proposing an inventional model for audience analysis, borrowed from mathematics, that employs both pragmatic and theoretical considerations. Its pragmatism derives from hundreds of hours of teaching using various models of audience analysis, and a distillation of the most effective of these methods in picturing for students the realities of "working" communication, judged by its effectiveness in generating a particular response in a reader. Its theoretical value lies in its parallels to mathematics, and in its ability to "guide and direct the writer's cognitive processes in generating the substance of discourse" [6] by picturing with set theory the nonverbal intricacies of a working communication between two individuals with either conflicting or corresponding needs within a larger context of organizational procedures and goals. Thus, the proposed model provides the theorist with an opportunity to explore some connections between mathematical relationships and analogous problems in purposive communication.

The model's immediate purpose is to determine in what areas the needs of two communicating individuals coincide, and therefore what subjects need to be discussed in order for those shared needs to be satisfied. However, the model's flexibility, analogous to the infinite expansiveness of set theory, allows it to accommodate more complex relationships among multiple senders and receivers, thus making it adaptable to fairly intricate and specific applications in engineering, the sciences, and business. As in set theory, which illustrates and classifies relationships of objects or numbers, the model demonstrates that individual communicators operate within many overlapping contexts, all of which determine the priorities and goals of those individuals.

A Business-Writing Heuristic

A context for the examination of this model can be established by a comparison with a widely-used heuristic for message organization, the analysis worksheet. This list of questions about writer's and reader's backgrounds and needs takes the following form in the Business and Administrative Communication course at the University of Illinois:

1. What is your position as writer?

2. Who is your audience?

3. What are your purposes in writing?

4. What objections do you anticipate from your reader?
   What negative elements must you subordinate?

5. What is your action step?

Usually, a full fifty-minute class period is spent the first time this heuristic is introduced, with students prodded into increasingly thorough responses until enough information is generated for them to write effective messages.

A student exercise from Effective Business Communication, by Murphy and Peck [4], illustrates the way such a list of questions works to clarify communication relationships for students. The exercise is a good news/sales letter to an elderly potential customer. In spite of repeated attempts to rid students of their preconceived notions about this customer by changing her name, she persists as "Mrs. Oldtimer." The problem appears in figure 1.

FIGURE 1. Good News/Sales Letter

Favorable Reply to an Inquiry About a Service

Assume you work in the passenger department of Central Airlines, whose planes fly in and out of your city, Houston, Texas. Answer the following letter from Mrs. Matilda Oldtimer, who lives in a rural area about 60 miles north of Houston.

> For several years now I've been wanting to get up courage to take an airplane trip from Houston to Los Angeles. I have saved up the money and the bus to downtown Houston goes right by our house. Now I'm 78 and I guess that is supposed to be old. My family has been urging me to come. My favorite grandson is getting married in L.A. and I want to attend his wedding, and I want to go the safest and fastest way. How long does the plane take?
>
> There are a few things I want to know first. I've heard that lots of people get sick on airplanes. I also hear that you serve alcohol and I can't drink anything but milk or tea. I suppose, too, that nothing but cold food is served, and I have to have hot meals. Oh, and one more thing, would we be too high up to see objects on the ground?
>
> If you can clear up these points, I think I'd like to take the trip.

Here are the facts: Fewer people get airsick than get sick in trains or autos. You don't serve cold meals. Hot meals are prepared and served individually by the stewards--not just lunches but full dinners. Also, there is no charge for the meals. You don't serve alcohol free in economy and tourist classes. Champagne cocktails are served free in first-class travel, but for those who don't want champagne, there's tomato or fruit juice. Jet planes between Houston and Los Angeles fly at between 30,000 and 39,000 feet altitude, from which passengers can see the ground when the weather is clear. One stop is made in Phoenix, Arizona--the plane swoops down smoothly before it lands. Scenery is gorgeous along the way. Flying time is about three hours. Airport bus picks up passengers at Sleepease Hotel in downtown Houston and takes them to the Houston Airport in 35 minutes; the charge one way to the airport is $2.50. Give all the information Mrs. Oldtimer needs to make a reservation. Your goal is to try to encourage her to travel by air on your line. Skilfully combine reader-benefit sales talk with your answers to all her questions, implied and stated. Assume any other needed pertinent details.

Class discussions of the issues raised by the analysis worksheet generally result in the following collection of facts: the writer is a customer service representative of Central Airlines, whose immediate purpose in the message is to answer Mrs. Oldtimer's questions. The ultimate purpose is, of course, to sell her a plane ticket. These answers to questions one and three, about writer and purpose, inform the answer to question four, about reader benefit; the writer appeals to the reader by delivering the information she has asked for, both implicitly and explicitly. But to thoroughly answer question four, the students must return to question two, "Who is your audience?" and carefully consider just who Mrs. Oldtimer is and what she wants.

This process of identifying and describing the audience is what takes up most of the discussion time; students enjoy visualizing Mrs. Oldtimer with the help of the instructor, whose primary contribution is usually to rein in the more extravagant speculations about her.

Mrs. Oldtimer generally emerges as follows: she is a little defensive about being "old," but is well able to take care of herself. She needs to know how long the flight takes, and what she will be able to eat and drink on the plane. She also wants to be reassured that she will be able to see the ground during the flight. And, although she has not asked specifically, she needs to know how to get from the Greyhound station in Houston to the airport.

A number of misconceptions and erroneous assumptions about this reader are suggested both by the wording of the problem and by common preconceived notions that students hold about "old" people. For one thing, Mrs. Oldtimer is not trying to decide whether or not to fly, and she is not poor. But because of the way the "facts" are presented in the problem, and because of common associations with "rural," students usually need to be dissuaded from offering her comparisons of the relative costs of flying and other forms of transportation.

Also, any reference to airsickness adds negativeness to the letter. Although Mrs. Oldtimer's question must be answered, it can be answered in a positive way, in terms of comfort, smooth ride, or other reassuring information. The less said about barf bags and accident statistics, the better.

Students with a realistic picture of Mrs. Oldtimer will omit certain other given facts from the message they write. While Mrs. Oldtimer does need to know that the plane stops in Phoenix, she does not need to be told that the plane "swoops." Neither does she want to hear that she will be flying at up to 39,000 feet, or that she will be able to see the ground in clear weather. These things suggest too many negative possibilities. Rather, she can be told about the route the flight will take, and what specific sights will be visible, leaving implicit the assumption of good weather.

By this point in the discussion, students usually need to be cautioned, in their eagerness to supply Mrs. Oldtimer with specific information, against going overboard on instructions about how to take the bus, how to check her baggage, how to find the gate, and so on. A reminder is in order, that the overall purpose of the letter is to convince Mrs. Oldtimer, through goodwill and a clearly articulated service attitude, that Central Airlines is the carrier she should choose. She probably has written the same letter to several other airlines. The manner in which the writer answers her questions will determine her choice.

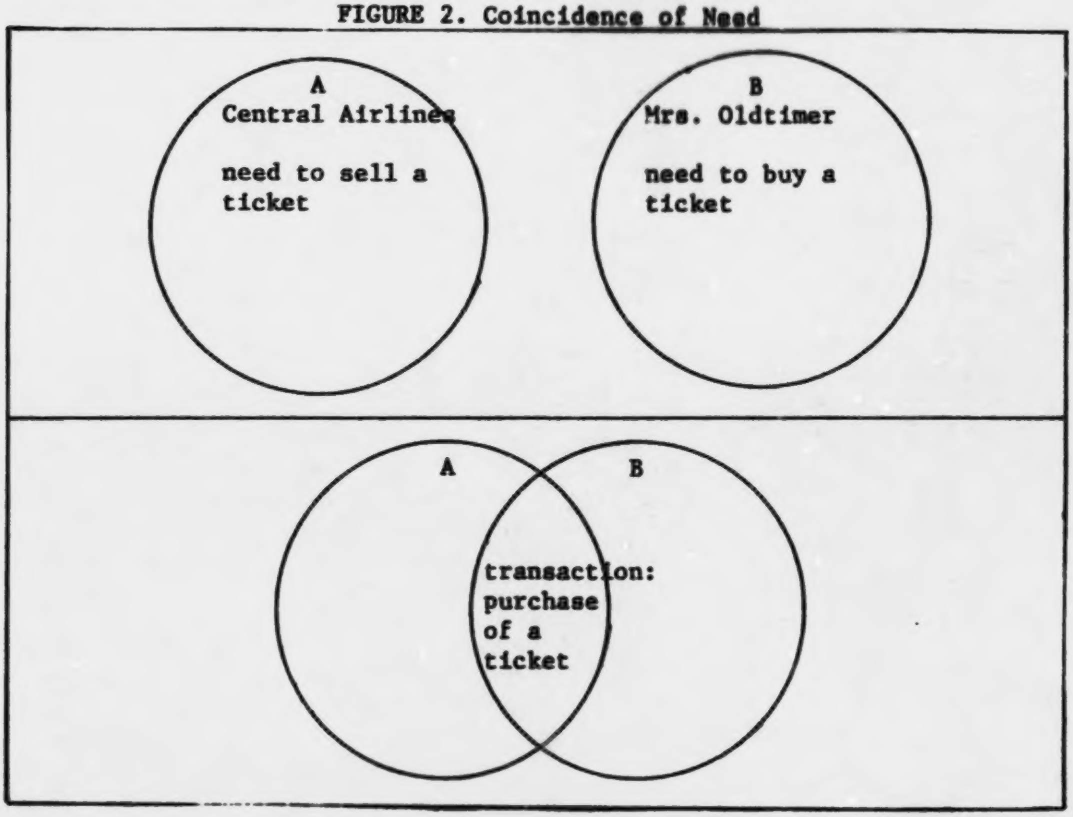
The letter's purpose culminates in the final paragraph, the action step, with a request that Mrs. Oldtimer "act" by calling Central Airlines to make her reservation.

Coincidence of Needs: A Visual Heuristic

The discussion of such questions, as well as other types of heuristics: lists, protocols, role-playing, free association, and so on,are all good and frequently-used methods of getting across to students the necessity of thoroughly analyzing a communication situation and its participants before attempting to compose a message. To this list can be added a visual analogy which at the simplest level reproduces the verbal process just described: a Venn diagram with the universe defined as an organization or particular business context, set A as the needs of the writer, set B as the needs of the reader, and the intersection of sets A and B as the transaction, or the action step of the message, supported by the material to be included in the message.

Using a Venn diagram, the student can organize the material given in the problem into a "picture" of how to write the letter. In its simplest form, the model appears as in figure 2.

FIGURE 2. Coincidence of Need



The needs of both writer and reader are satisfied in the intersection of A and B, which represents the substance of the letter's action step: "Call us to make your reservation."

However, the Venn diagram can also be used to illustrate the more complex nature of the audience analysis. In such a use, sets A and B expand to include characteristics, as well as needs, of the two parties:

FIGURE 3. Expanded Sets of Needs and Characteristics

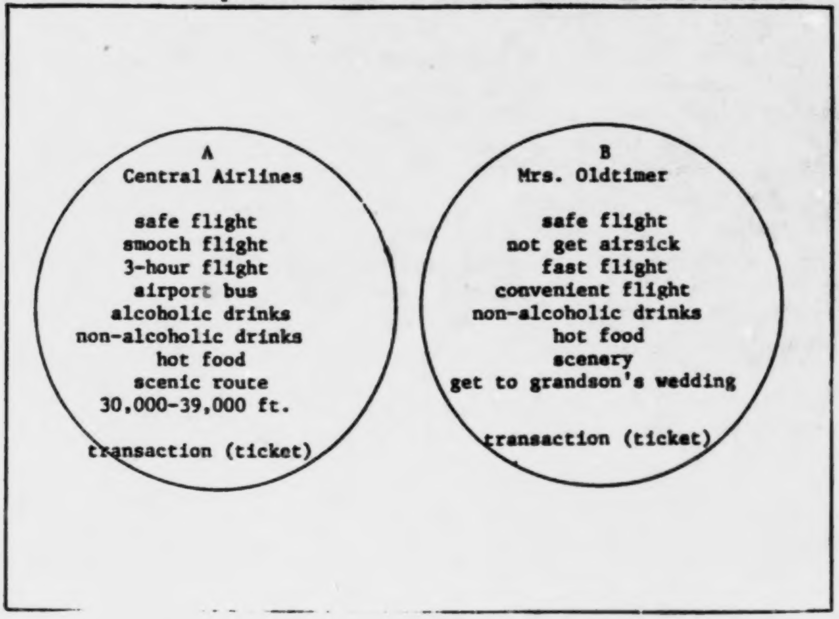
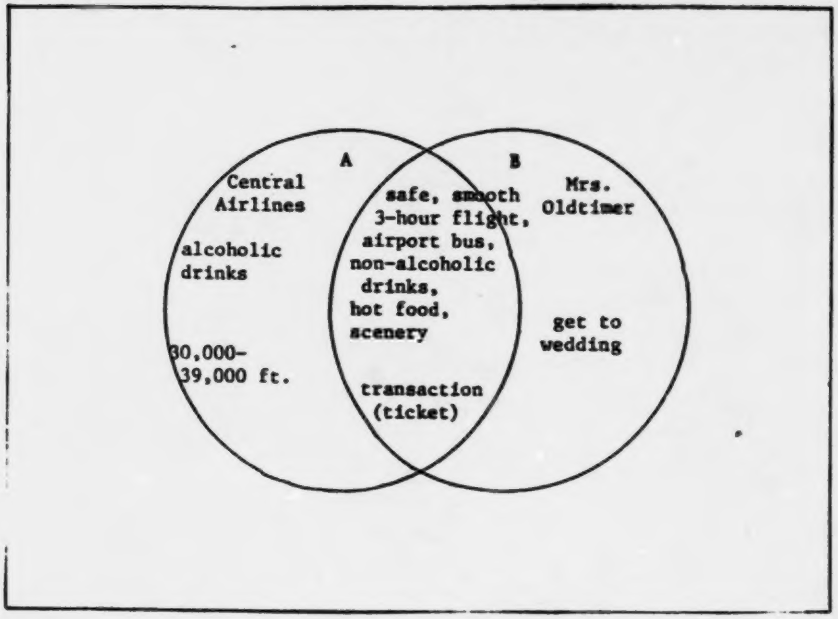

A
Central Airlines
safe flight
smooth flight
3-hour flight
airport bus
alcoholic drinks
non-alcoholic drinks
hot food
scenic route
30,000-39,000 ft.
transaction (ticket)
B
Mrs. Oldtimer
safe flight
not get airsick
fast flight
convenient flight
non-alcoholic drinks
hot food
scenery
get to grandson's wedding
transaction (ticket)

FIGURE 4. Coincidence of Expanded Needs


A
B
Central Airlines
Mrs. Oldtimer
alcoholic drinks
30,000-39,000 ft.
safe, smooth 3-hour flight, airport bus, non-alcoholic drinks, hot food, scenery
transaction (ticket)
get to wedding

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The intersection of the expanded sets A and B provides the raw material of the letter the student will write to Mrs. Oldtimer; the remainder of each set can be discarded or perhaps used to fulfill some implicit need.

Thus, with the characteristics it is given in the problem statement, Central Airlines can provide safety, freedom from airsickness (presented as a smooth, comfortable flight), and speed (three hours can be presented as a short period of time, with the stop in Phoenix handled in a subordinate phrase).

The set "Central Airlines" also possesses the "characteristics" of hot food, nonalcoholic drinks, and a scenic route, which meet Mrs. Oldtimer's remaining explicit needs. While the airline promises to get Mrs. Oldtimer to Los Angeles, transportation to the wedding itself is beyond the purchased service; therefore, that need remains outside the intersection of A and B. However, the student, having drawn the diagram, can judge whether to include a reference to such unmet needs. In this case, goodwill can be reinforced by a positive reference to the wedding, even though it is not part of the transaction. The diagram also shows very clearly which facts have no relevance to Mrs. Oldtimer's needs; these can be discarded.

Finally, the desired transaction, which was earlier defined as the letter's ultimate purpose, remains to be encouraged in the action step.

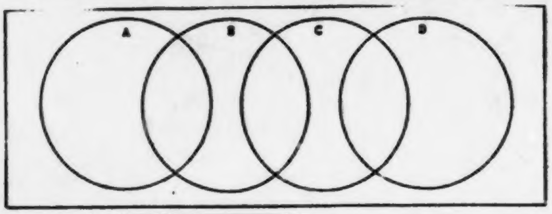
IMPLICATIONS OF THE MODEL: EXPANSION

In her discussion of inventional and structural models Victoria Windler explains that inventional, or process-oriented, models more closely resemble the creative process because they employ open-ended analogies, while structural, or product-oriented, models are less conducive to invention because the analogies they employ are rigid, "fill-in-the-blanks" patterns into which students merely insert data [6].

The Venn diagrams just discussed, however, appear to embody the best characteristics of both types of models: a clear, simple structure for the visualization of what data belongs in a message and what does not, and also the possibility of theoretical extensions that could help students recognize the interdependencies of different levels of corporate organization and communication.

One variation of the model can be used to indicate chains of responsibility in a work process:

FIGURE 5. Linked Responsibilities

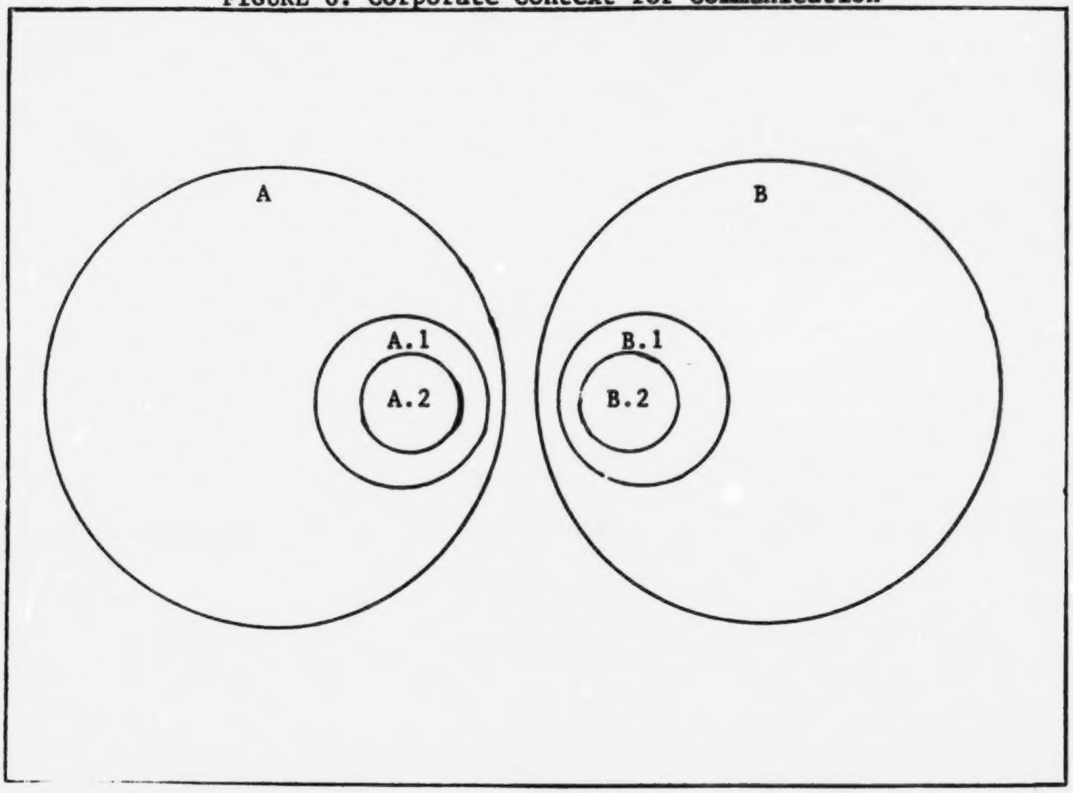


In figure 5, individuals must accomplish work by generating action links in a chain of responsibilities orchestrated by communication. All participants' responsibilities overlap, as each unit in the chain connects with another unit from whom he/she receives input, or to whom he/she outputs information. Within the chain, individual B understands his/her responsibilities to be a combination of his/her needs with those of A, who is giving orders or other input. B needs to get his/her work done and move the process along to C. Thus, the needs of A and B combine to produce work which then will influence B's communication with C. B's responsibility is to recognize the coincidence of his/her needs with those of A, at the outset of the work, and of the coincidence of his/her needs with those of C, as he/she passes onto C the finished product which allows C to work. Likewise, C's needs coincide with those of B when C begins his/her task, and with those of D as C communicates to D what D, in turn, is responsible for accomplishing.

The model's utility resides in its flexibility and its assumption of a corporate or other context in which the two immediate communicators operate. As in set theory, the two individuals may be contained in a larger set that includes their needs as well as other corporate necessities of which they must be aware.

This type of corporate interdependency can also be illustrated by another variation of the model. Figure 6 represents a corporate context for communication.

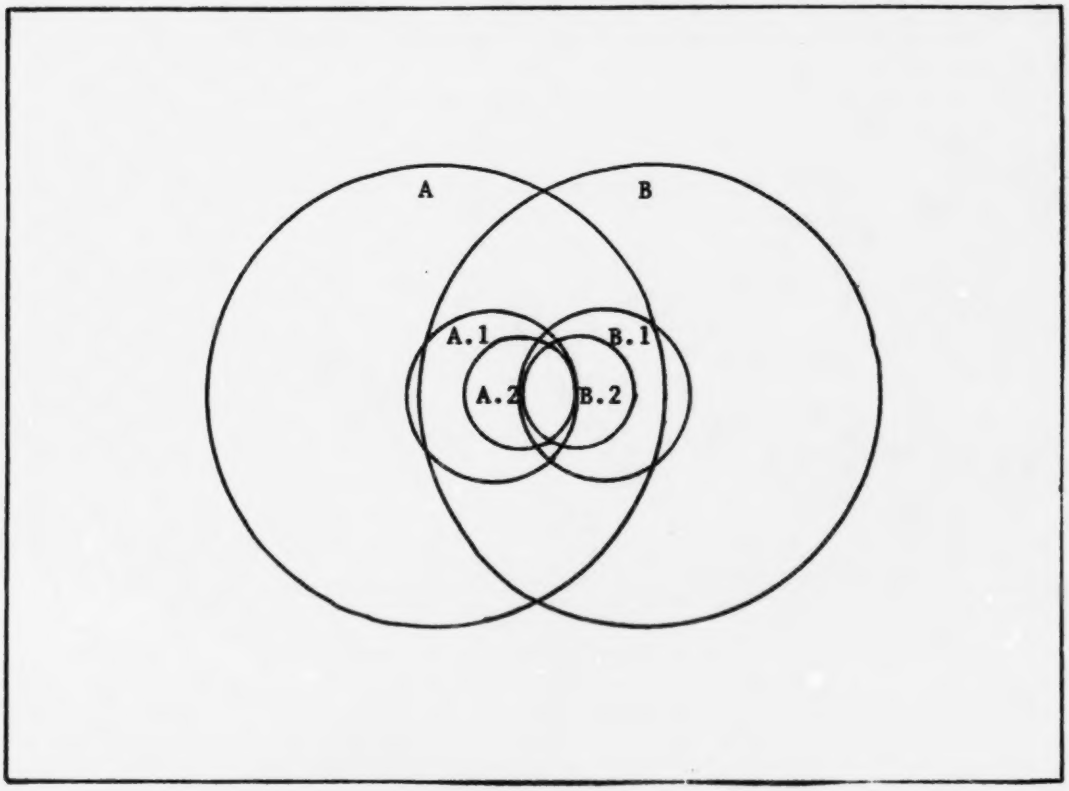
FIGURE 6. Corporate Context for Communication



Sets A and B are large corporations that have agreed to interact on several projects, one of which involves B's performing a consulting service for A. A's subsets are A.1, which is the division of A responsible for the transaction, and A.2, which is the group of individuals assigned to the operation. B's subsets are B.1, which is B's division for consulting services, and B.2, which is the group of individuals working directly with the individuals in A.2.

In figure 7, the intersection of sets A.2 and B.2 represents the daily interactions of these groups, the ongoing communication transactions that allow the work to be done. The interdependencies of the various levels of the corporations are illustrated in the overlapping of all six sets within the intersection of the two groups that communicate directly with each other.

FIGURE 7. Interaction in a Corporate Context



This use of the Venn diagram is reminiscent in its visualization of multiple audiences to that of the concentric audience analysis model of Mathes and Stevenson [3], with individual lines of communication here less clearly defined, but with organizational interdependencies perhaps more forcibly represented.

QUALIFICATIONS, POSSIBILITIES

A complete development of the needs and characteristics of the sets and subsets pictured in figures 6 and 7 may not be as useful as the isolation and analysis of sets at a single level, as in figures 2-5. However, at least one interesting possibility remains to be explored: the extension of the analogy to mathematical operations performed on the sets, to discover whether the model qualifies as systems theory or whether is is a one-dimensional analogy limited to structural prescriptions.

But, regardless of the presence or absence of theoretical resonance, the Venn diagram can work well in the product-oriented professional writing classroom, where the instructor can always use a new way to picture communication responsibilities for students whose chosen professions are increasingly information-oriented.

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A COMPUTER ALGORITHM FOR MEASURING READABILITY

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ABSTRACT

This research developed a valid, reliable, and efficient computer algorithm for the measurement of readability that includes grade level, a measure of consistency, and an estimate of sample size adequacy. The algorithm was obtained through statistical analysis of traditional readability indices and standard text samples. The algorithm is very easy to apply and is available in a word processor.

INTRODUCTION

The determination of the complexity of written material is a significant educational concern since learning efficiency is increased when the skills of the reader are matched to the material [15]. Similarly, business and industry have long expressed concern for the readability of written materials in effective internal and customer communications [4]. This research investigates the elements and measurement of text complexity with the goal of the development of a valid and efficient method for determining readability.

The two major elements in the measurement of readability are the characteristics of the reader and the nature of the written material [6]. The interest of the reader and the reader's background will affect the readability of written material [14]. This research is solely concerned with the nature of the written material. The implicit assumption, for the purpose of readability measurement, is that all readers are similar in interest and reader background is operationalized as grade level.

Readability measurement is generally concerned with determining the grade level for which the material is comprehensible. Grade level is defined by the American school system; for example, 9-12 is the secondary level or high school level. The usually accepted range of readability covers the grade levels from one to seventeen [10]. In other words, it is assumed that text material cannot be meaningfully lower than grade one and text with a grade level higher than seventeen is very likely to be incomprehensible.

LITERATURE

For the past several decades, a number of good formulae have been in use for the determination of readability based upon linguistic factors [12; 16]. They have operationalized linguistic factors in terms of number of characters per word, number of words or syllables per sentence, and number of special words per sentence.

Formulae that utilize special words include the Dale-Chall formula [5], which uses a list of predefined familiar words along with average sentence length, and the Gunning Fog Index [11], which uses a combination of sentence length and number of difficult words where difficult is defined as a word with three or more syllables.

The Fry Graph for Estimating Readability [9; 10] uses average number of sentences per 100 words and average number of syllables per 100 words to estimate readability from a readability graph which returns the grade level. The same basic criteria is used by the Raygor Readability Estimate [20] except that word length is expressed in the number of letters. Words that are six or more letters in length are defined as hard words.

Formulae that utilize a measure of sentence length and a measure of word length include the Smog index [19], the Flesch Reading Ease Score [8], and the Rix estimate [1]. These indices demonstrate that the concepts of word and sentence difficulty can be operationalized to yield a practical index of readability in terms of grade level [1].

READABILITY MEASUREMENT PROBLEMS

There are severe critics of readability measures who question the validity and reliability of all indices [24]. However, Klare [16] has noted the usefulness of readability measures for many applications. Within the traditional limitations, this research seeks to improve the measurement of readability.

A major problem with past measures of readability has been implementation. Counting literally hundreds of words, letters, or syllables is time consuming and prone to error. The evidence indicates that human counters are embarrassingly inaccurate, often resulting in unreliable scores [12]. In summary, traditional indices are difficult to implement accurately and reliably with manual methods.

Today, the computer can deal with the problems of accuracy and reliability in the measurement of readability. A popular computer approach is the STAR program developed at General Motors which essentially computerizes the Flesch index [7; 12; 17]. These computer implementations of the Flesch index are required to count the number of syllables in a sample.

Obtaining an accurate syllable count by computer is an interesting problem. First, there are problems in syllable determination; for example, the number of syllables in words like "stopped", in abbreviations, and in numbers [10]. Second, a complete syllable dictionary would be required since there is no grammatical algorithm for syllable definition. The STAR implementations of the Flesch index determine syllables by counting nonconsecutive vowels with allowance for certain exceptions [12]. This procedure is probably valid since there is a high correlation between manual syllable counts and the STAR method [3].

Though the results of the STAR program are probably valid, the program is unwieldy and not easily implemented. Finally, other computer methods have only provided a very rough estimate of readability with no evidence of correlation with the more precise, established methods [21].

There are two secondary problems associated with all measures of readability that are severely limiting. First, no statistically reasonable criteria has been established for sampling the written material. Most measures simply suggest, "the larger the sample, the better." Second, no systematic procedure exists for determining the consistency of the written material. Consistency of written material refers to the variability of the reading level throughout the text.

This research seeks to determine a valid and reliable computer method for the measurement of readability which is based on a statistical analysis of traditional indices. The resulting algorithm should include a measure of consistency, and an estimate of sample size adequacy.

PROCEDURES

Fifty samples of standardized written material were selected which represent grade levels from one through fifteen [2; 13; 25; 28]. The readability of the samples were manually calculated by five existing methods. The methods included the Dale-Chall index [5], the Spache method [26], the Fog index [11], the Fry method [9], and the new Fry method [10]. The calculations involved word, sentence, syllable and character counts.

The ten correlations between the five measures averaged .9433 with a standard deviation of .0209 indicating very high and consistent agreement among the measures. Interestingly, the Dale-Chall index which is aimed at the secondary level and the Spache index which is aimed at the primary level were not clearly distinguishable from each other. As a result of this analysis and the known high correlations between these indices and other measures [1; 10; 23], it is concluded that these indices represent a composite estimate of the readability level of the samples.

The next step is a factor analysis of the five indices over the fifty text samples to assess the degree of shared variance among the different indices. Image factor analysis was used given the empirical basis of the data [22]. As expected, one very significant factor was extracted which accounted for 93.3% of the variance in the correlation matrix of the five indices. Factor scores were obtained and scaled to match the range of the five indices. The scaled scores may, therefore, be considered a composite reading level index.

The analysis of readability in terms of text difficulty has clearly established that the best predictors always include a word factor and a sentence factor [1]. In general, these two factors have been used to derive a regression equation for estimating readability [16]. Following these known procedures, this research began an iterative process to determine an algorithm which closely replicates the grade level determined by the scaled factor scores. The algorithm must only use combinations of word, sentence, and character length, though cumulative expressions are permissible. This requirement ensures that the formula is compatible with computer processing.

The results after many trials indicated that the independent variables of average sentence length, average word length, and average word length squared were sufficient to account for 91% of the variance of the scaled factor scores. The regression equation is:

$$GL = 19.54 + .297*ASL - 12.44*AWL + 1.957*AWL*AWL$$

where GL = grade level, ASL = average sentence length and AWL = average word length. The r-square value is .90775 with an F-value of 150.88 indicating a quite accurate predictive algorithm. Each independent variable in the equation is significant and cannot be omitted without a significant reduction in the predictiveness of the equation. Similarly, no other variable was found which added significantly to the equation.

GL was computed for the fifty text samples and compared to the grade levels obtained with the five original indices. The average correlation of GL with the five indices is .9419 with a standard deviation of .012. It can, therefore, be concluded that GL will yield essentially the same results as any of the five traditional indices. It should be noted that these results hold for the entire sample which included grade levels from one to fifteen.

The quantitative analysis to this point is interestingly informative to the qualitative analysis concerned with understanding the factors associated with reading difficulty. This understanding is necessary if appropriate changes are to be suggested to meaningfully alter the reading difficulty of specific written material. Though critics claim that readability formulas are useless in producing readable materials [24], the fact remains that text with a low grade level will almost certainly have short sentences and words.

The results of this research indicate that there may be a complex relationship between word length, sentence length and grade level. For example, with average sentence constant, changing the average word length from 4 to 5 increases GL by about 5 points while increasing average word length from 5 to 6 increases GL by about 9 points.

The next stage of the research involved testing of GL, the empirically derived algorithm, on new samples. A purposive sample of 18 selections was selected from available documents including a child's reader and an advertisement for term insurance. Calculations for grade level with the Gunning Fog Index and the new Fry graph showed levels from 3 to 21. The correlation between the Fry level and the Fog Index was .94. Using the GL equation on the samples yielded a .98 correlation with the Fog Index and a .96 level with the Fry Graph for Estimating Readability. Therefore, on the basis of the results, it may be concluded that GL is a valid readability equation.

The final stage of the research is the incorporation of a standard statistical methodology which will allow the calculation of the variance of the grade level produced by the research algorithm. This will allow both a measure of consistency and an estimation procedure for determining sample size according to a given confidence level [18].

A CONSISTENCY INDEX

An important issue in the realm of readability analysis is the consistency of the written material. How consistent is the reading level of a work? Does it vary so much as to make it unsuitable for any grade level? What is the range of reading level in the material?

Previous methods of readability analyses rarely mentioned the consistency concept. If consistency were an issue, then several analyses were suggested. The results were then compared to determine a level of consistency. If the analyses utilized reasonable sampling, then the standard deviation of the results would be a reasonable measure of consistency. Of course, this procedure does not establish the consistency within any of the samples.

To improve the above suggestions, the reasoning may be placed in a formal statistical context. Suppose that one calculated the reading level for each sentence in a sample, as well as the reading level for the entire sample. The standard deviation of the sentence levels could then be utilized as a measure of the consistency of the material.

To illustrate this consistency methodology, suppose that eleven sentences have been checked and they have an overall index of 8.0 with a standard deviation of .5. Note that the reading index is NOT the mean index of the separate sentences but is calculated with the entire sample, while the standard deviation is obtained from the sentence levels. According to statistical theory, it can be assumed that the true reading level is between 7.5 and 8.5 about 68 percent of the time, or the true index is between 7.0 and 9.0 95 percent of the time.

A reasonable rule of thumb, as illustrated above, is that the obtained reading level plus and minus twice the standard deviation will yield a range within which the level of the material will fall about 95 percent of the time. In any event, the standard deviations calculated in this way are excellent relative comparisons.

Suppose a teacher had two texts to choose from, each at the same grade level, and one had a much larger grade level standard deviation than the other. If the teacher wished to challenge the class, then the less consistent text with the higher standard deviation might be chosen. On the other hand, if the teacher has a very homogeneous class, the text with the smaller standard deviation might be most appropriate.

SAMPLING

How many passages should be used in order to be confident that the results of a readability index are reliable? Most measures of readability suggest that about 100 words are the minimum for a single sample. Unfortunately, it has been shown that 100 word samples are not always reliable for determining a readability index [27]. On the other hand, it is known that acceptable results can be obtained by increasing the sample size and that it would be extremely rare to have to sample the entire document since author's styles are remarkably consistent [15]. Therefore, what we need is a method for determining when we have sampled enough for consistent and reliable results.

A reasonable method would be to continue sampling until the running mean index no longer significantly changes. In other words, calculate the index after each sentence is included so that there will be an index for the first sentence, an index for the first two sentences, an index for the first three sentences, and so on. At some point, the running index for X sentences will not differ significantly from the running index for X - 1 sentences. At this point sampling could stop, as it is highly unlikely that additional sentences will change the index. The general idea is to sample until additional information fails to change the estimate of the reading level of the material. This technique is more efficient and accurate than sampling with an arbitrary, fixed number of entries.

This is the concept used, but with the more sensitive standard deviation. As the standard deviation is calculated after each successive sentence, then the sampling can be ended when the standard deviation for X sentences is not significantly different from that for X - 1 sentences. The standard F test on the ratio of standard deviations should be used here to define significant differences.

Using the above method, an F table is required with values for a 10 or 20 percent confidence interval about the ratio of standard deviations. Empirical investigations indicate that a 20 percent confidence interval yielded reliable results. This means that if the ratio of standard deviations from X to X - 1 is between .95 and 1.05, then it can be concluded that there is no significant difference and sampling may be considered sufficient. Of course, a minimal number of sentences is always required. An empirical answer suggests that four sentences be considered the absolute minimum for reliable results. Another minimal criteria could be the usual 100 word sample.

The problem of sample size is therefore reasonably answered. The reading analyst can now use methodological variations, giving greater significance to the procedure. The flexibility that is implicit in this method would allow an analyst, for example, to sample sentences from just one suspect chapter of a text, to take a sentence from the first line of each chapter to check consistency, or to sample from each chapter until equilibrium is reached and then compare the number of sentences required in each chapter to reach equilibrium.

CONCLUSION

The algorithm described here provides a fast, efficient and accurate means of determining readability. Although designed for computer usage, the GL formula itself makes manual calculations easier. The complete implementation of the algorithm which calculates the grade level, the standard deviation of the sample for a measure of consistency, and an estimate of sample size adequacy has been incorporated into a word processing program named WordProc. The program is available for a small fee from the author.

Computers give us the ability to rapidly and accurately compute reading level for comparative analysis. The use of the algorithm described in this research is conducive to microcomputer adaptation. Therefore, it is hoped that the implementation of this algorithm and similar measures will help proliferate the analysis of reading level and a concern for the valid measurement of readability of written communications.

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PART II
EVALUATION OF COMMUNICATION TECHNIQUES

IF MANAGERS MUST WRITE, MANAGEMENT STUDENTS MUST WRITE

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ABSTRACT

This research was conducted to evaluate the effectiveness of incorporating writing requirements along with limited review of mechanics and style into the principles of management class. The experimental group, which received the writing treatment, scored significantly higher on a post-test of basic writing skills than did the control group, which experienced no communication instruction or assignments. The experimental group also registered significant gains from pre-test to post-test, whereas the control group did not. Incorporating writing requirements and instruction into principles of management courses appears to be an efficient and effective method to improve basic writing skills.

INTRODUCTION

Managers at all levels and from all types of organizations repeatedly stress the importance of communication skills in the efficient completion of their job responsibilities. For example, Hunger and Wheelen [2] examined the views of business school deans, corporate presidents, and personnel officers with regard to undergraduate business education and concluded that more emphasis must be placed on both oral and written communication skills.

As recently as February, 1985, a committee appointed by the Association of American Colleges in a report of the Project on Redefining the Meaning and Purpose of Baccalaureate Degrees made this charge.

> The business community complains of difficulty in recruiting literate college graduates. . . .Writing as an undergraduate experience, as an exploration of both communication and style, is widely neglected [3, p. 12].

While business managers recognize the importance of developing communication skills, the responsibility for developing these skills has not been completely accepted by business schools. Muse, who has held deanships at four business schools, states:

> After at least 20 years of complaining by industry recruiters, we don't seem to have progressed much at all or even given communication skills a high priority [5, p. 1].

Secondary schools and teachers of writing are frequently blamed for students' lack of writing skills. However, neither the secondary schools nor the teachers of writing are totally responsible for developing writing proficiency of college students. Knapper recommends that all teachers share that responsibility.

> Historically, the teachers of writing have borne the burden, responsibility, and blame for teaching or not teaching good writing skills. They indeed should be commended for their valiant efforts, but the very nature of the writing process stacks the cards against them. Alone, the teachers of writing are bound to be less than wholly successful since no one person can possibly possess all the skills and fill all the conditions necessary to achieve a high rate of success in training good writers. The teachers of writing need help just as much as the nonwriting teachers would need help in teaching writing. The responsibility for producing good writers is really a shared responsibility--every teacher, regardless of subject matter, must get in on the act [4, p. 21].

One of the problems business schools encounter when a communication course is required for all business students is the lack of faculty resources. The resource strain caused by the addition of a basic business communication course requirement in the undergraduate business curriculum often results in the suggestion that incorporating communication instruction into business core courses may be an effective method for improving the communication skills of business students. Again Knapper's observations are pertinent:

> Providing the learning conditions that will produce an acceptably good level of writing skill among students is not a simple or easy task. Nor can that task be the responsibility of just one instructor in one course! To be most effective, the task must be shared by at least two professionals; namely, the professional in writing (language mechanics and methods of presentation) and the professional in the substantive content of a subject.
>
> The professional in writing has primary responsibility for teaching the language, mechanics, and methods of presentation. The professional in the substance of the subject matter has the primary responsibility for teaching students how to deal with the subject matter [4, p. 26].

LITERATURE REVIEW

Although the concept of shared responsibility is frequently given lip service, a survey of the literature reveals little, if any, evidence that such an approach is practiced in AACSB schools. Furthermore, when it is practiced there is little research evidence that such an approach is an effective teaching strategy.

Glassman and Farley surveyed AACSB accredited schools to determine the emphasis these schools were placing on business communication. Seventy-six percent of the schools responding to this poll offered one or more business communication courses; however, only 53 percent required at least one course. Glassman and Farley noted that business executives criticize business schools because their graduates cannot write. The researchers blamed this inadequacy on the lack of writing demands in college and in the day-to-day activities after graduation [1]. They concluded that only non-traditional solutions can help alleviate the problem. If the environment is not conducive to requiring extensive student writing throughout the undergraduate program, they recommended that writing skills be taught in the senior year so that "writing proficiency will be at its peak when students enter the business community. . . ." [1, p. 48].

Loyola University of Baltimore, Maryland, tested a strategy for integrating writing components into required business courses. Forty-three students were randomly assigned to three sections of the undergraduate business policy course. Students were required to submit five written cases. In one section the written cases were evaluated in the traditional fashion with comments made on the papers regarding both content and writing style. In the second section, lectures and class discussion emphasized writing. In the third section students used class time to schedule individual conferences with an English instructor to whom they were required to submit drafts of each case analysis. Each student in the section using this "draft intervention" method had 80 minutes of conference time.

The students who participated in the "draft intervention" also performed the best in each case analysis.

> Students appeared to use the conferences as catalysts to transcend their focus on a few strategic issues, to make progress toward grasping a larger strategic framework, and to get the help they needed in building a paper that was well-focused and well-organized around an adequate strategic interpretation of the case [7, p. 170].

STATEMENT OF THE PROBLEM

The results of an experiment to improve undergraduate business students' communication skills is reported in this paper. The study was conducted in a southeastern state university. Although the business school offers an undergraduate business communication course, the course is required in only one track in the management area. Limited faculty resources have resulted in resistance of proposals to add that course to the undergraduate core requirements.

The research problem was to evaluate the effectiveness of incorporating writing requirements into the principles of management course. It was hypothesized that with limited review of mechanics and style and substantial feedback about writing quality, students would improve their basic writing skills. The objective of the study was to provide insights about alternative methods of teaching communication skills in the undergraduate business curriculum.

METHODOLOGY

Sample

The sample consisted of four sections of principles of management and three sections of basic business communication at the University of South Carolina. All sections were taught by tenured associate or full professors. Two management sections were designated as the experimental group (Ex) and two as the control group (Cont). The business communication (Comm) sections were used as a comparison group.

Measurements

The McGraw-Hill Basic Skills System Writing Test [6] was used as the criterion instrument. Form A was administered to all groups as a pre-test at the beginning of the fall, 1984, semester; Form B was administered as a post-test during the last week of the semester.

The test measures basic written communication skills: language mechanics (30 items), sentence patterns (26 items), and paragraph patterns (15 items). It is normed for 4-year college freshmen, 2-year college freshmen, and college-bound juniors and seniors in high school. Reliability coefficients (Kuder-Richardson 20 formula) based on these norming groups are .85 and .86 for Forms A and B respectively.

SAT Verbal scores (SATV), accumulative grade point ratios (GPR), and scores on a university writing proficiency test (WPT) were obtained from college records with students' permission.

Treatments

In addition to taking the pre-test and post-test, students in the experimental group completed four in-class writing assignments which were graded both for content and writing quality. Business communication professors and graduate assistants evaluated each paper for clarity, coherence, style, and mechanics (40% of grade); the management professor evaluated each paper for content (60% of grade). Grades for the three best papers constituted 30 percent of the course grade; therefore, the writing evaluation accounted for 12 percent of the course grade. Scores on the writing pre-test and post-test were not included in the course grade.

Brief lectures on writing (primarily style and mechanics) and suggestions for improvement were given by communication professors after each graded assignment was returned and before another assignment was given. In addition, the business communication personnel wrote specific suggestions and comments on the papers and encouraged students to come to their offices for individual analysis. About 220 hours of grading effort--60 hours on content and 160 on writing--were expended for approximately 180 students in the experimental group.

No writing assignments were given to the control group. The primary instructional method was lecture and discussion of management principles and cases, followed by multiple-choice exams. The writing pre-test and post-test were administered, but participation was voluntary and scores were not included in the course grade. Although participation in this experiment was voluntary, the characteristics of this group (GPR, SATV, and Pre-test) indicate no significant differences between the control group and the experimental group at the beginning of the experiment. Therefore, the results appear not to have been adversely affected by the voluntary participation of the control group.

The business communication comparison group received instruction and completed assignments typical of basic business communication courses. Primary emphasis was not on basic writing skills; rather instruction focused on adaptation of writing style to various business situations, mastery of the protocols of business communication, and oral communication skills. Class time devoted to review of writing mechanics was only slightly greater than that used in the experimental group. Pre-test and post-test participation was required, but the scores were not included in the course grade.

RESULTS

Data analysis included only those cases for whom a complete set of data (Pre-test, GPR, SATV, WPT, Post-test) existed, yielding the following numbers: Experimental Group, N=118; Control Group, N=22; Comparison Group, N=32. It should be noted that the actual numbers participating in the study were larger in all groups, but lack of data for a participant on any variable eliminated that case from the final analysis.

Analysis of first-stage data revealed the following:

1. The mean score of principles of management students on the pre-test writing test was 46.25, which fell into the 65th percentile for a freshman norming group. The scores ranged from 21 (3rd percentile) to 63 (99th percentile). The mean, low, and high scores for business communication students were 47.47 (69th percentile), 25 (6th percentile), and 62 (99th percentile) respectively.

2. Fifteen percent of principles of management students had scored 1 on the university's Writing Proficiency Test (WPT), requiring them to take English 100, a remedial course that may not be used to satisfy any English requirement. Sixty-seven percent of principles of management students had scored 2 on the WPT, requiring them to take both English 101 and 102. Only three percent of the students had scored 3, giving them credit for English 101; and no student had scored 4, to receive credit for both English 101 and 102. (WPT scores were not available for 15 percent of the students.) Business Communication students had registered similar scores on the WPT: 1 = 17 percent; 2 = 50 percent; 3 = 4 percent; 4 = 0 percent; missing = 29 percent.

These data suggest that the majority of students enrolled in the management and communication courses entered USC with mediocre-to-weak writing skills. After having completed English 101 and 102 and having progressed to the junior or senior level, those students still had little more than mediocre skills, scoring on average in the 65th percentile on a freshman writing test. The need for specific instruction in written communication skills for business is apparent.

Descriptive statistics (mean, standard deviation, skewness, kurtosis) and the F-test for equality of variance on GPR, SATV, and Pre-test were computed at the beginning of the study. Results indicated that each group approximated a normal distribution and the group variances were equal. Consequently, the major assumptions for application of the t-test (independent samples drawn from normal populations with equal population variance) were met.

T-tests revealed only one significant difference in group means on GPR, SATV, and Pre-test variables: the mean GPR of the experimental group was significantly higher ($p=.05$) than that of the Communication group. All other comparisons of means suggested that the three groups were comparable. (See Table I.)

At the end of the experiment, the F-test for homogeneity of variance indicated unequal variances among the groups on Post-test and Gain (Post-Pre) scores. Consequently, separate variance estimates of t-values were used to assess the differences in group means. Both the experimental group and the communication group registered significantly higher Post-test scores than did the control group (Table II). The mean Post-test scores for the experimental, control, and communication groups were 50.82, 45.32, and 50.94 respectively. The experimental group registered a significantly higher gain (3.89) than did the control group (.41). Although the communication group showed higher gain scores than did the control group, the significance level (.06) was slightly higher than the pre-determined .05 alpha level.

TABLE I. COMPARISON OF THREE GROUPS ON GPR, SATV, AND PRE-TEST VARIABLES

Variable	Group*	Means	Pooled-Variance T-value	d.f.	Two-Tailed probability
GPR	Ex/Cont	2.94/2.83	1.02	138	.384
	Ex/Comm	2.94/2.70	2.23	148	.027
	Comm/Cont	2.70/2.83	1.04	52	.302
SATV	Ex/Cont	3.75/3.73	.12	138	.907
	Ex/Comm	3.75/3.72	.18	148	.856
	Comm/Cont	3.72/3.73	.03	52	.977
Pre-Test	Ex/Cont	46.93/44.91	1.21	138	.227
	Ex/Comm	46.93/47.47	-0.37	148	.710
	Comm/Cont	47.47/44.91	1.10	52	.275

*Ex, N=118; Cont, N=22; Comm, N=32

TABLE II. COMPARISON OF THREE GROUPS ON POST-TEST AND GAIN VARIABLES

Variable	Group	Means	Separate Variance T-Value	d.f.	p
Post-test	Ex/Cont	50.82/45.32	2.43	25.63	.011*
	Ex/Comm	50.82/50.94	-.08	51.17	.937
	Comm/Cont	50.94/45.32	2.25	35.44	.015*
Gain	Ex/Cont	3.89/.41	1.94	23.88	.032*
	Ex/Comm	3.89/3.47	.46	51.96	.649
	Comm/Cont	3.47/.41	1.60	30.05	.060*

*One-tailed probability because it is reasonable to hypothesize that the experimental group and the communication group would score higher than the control group.

Comparison of Pre-test and Post-test scores within groups showed that the experimental and communication groups registered significant increases in scores, whereas the control group did not (Table III).

TABLE III. COMPARISON OF PRE-TEST AND POST-TEST SCORES BY GROUPS

Group	Mean Score Pre-	Mean Score Post-	Difference (Gain)	T-Value	2-Tail Probability
Ex	46.93	50.82	3.89	8.68	.000
Cont	44.91	45.32	.41	.24	.816
Comm	47.47	50.94	3.47	4.32	.000

CONCLUSIONS, IMPLICATIONS, LIMITATIONS

Since the three groups were essentially comparable at the beginning of the experiment, two major conclusions may be drawn from this study:

1. The observed differences in writing skills as measured at the end of the study were attributable, at least in part, to differences in instructional strategies.

2. The introduction of a writing component into the principles of management course is an effective strategy to improve basic writing skills.

A major implication of the study is that incorporating specific communication requirements and instruction into core courses may be an efficient and effective way for business schools to meet students' needs for communication instruction. Since business communication professionals are a scarce resource in many universities, and since many business professors feel insecure about providing communication instruction, an efficient allocation of resources may be to allocate a major portion of business communication professors' time to staffing communication components in required core courses. Including such instruction in courses such as principles of management and business policy could be an effective way to sharpen skills, prevent skill erosion, and reinforce the importance of communication skills in the business world.

An obvious limitation of the study is that it measured student performance in basic writing skills only. Students in the experimental group received no instruction about types of business messages, business communication protocols, or oral communication; neither were such communication knowledges and skills measured in the study. Since employers commonly expect business school graduates to possess more than basic writing skills, such instruction would also have to be incorporated into required courses. Careful planning, coordination, and resource allocation should permit schools to overcome this limitation.

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COMMUNICATION EFFECTIVENESS OF ORGANIZATIONAL MISSION STATEMENTS

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ABSTRACT

An empirical investigation of mission statement communication effectiveness (readability and tone) was conducted using a qualitative research methodology. All Fortune 500 companies and AACSB universities in the United States were contacted by letter asking for a copy of their mission statement. Responses were received from 218 companies and 107 universities. Of these, 135 usable mission statements were received and evaluated. The research findings indicate that organizational mission statement developers need to spend more time considering the readability and tone of their written statements in order to maximize their usefulness.

INTRODUCTION

Development of a mission statement is becoming widely acknowledged as an important first step in the strategic management process [20, 25]. Some researchers even argue that without a written statement of mission an organization does not exist [24]. Numerous empirical studies have recently concluded that firms which engage in strategic planning outperform firms that do not [3, 9, 11, 22]. Research focusing on the nature and role of mission statements in organizational processes is needed to improve management's understanding of these planning documents.

Several strategic management textbooks now include an entire chapter on mission statements attesting to their perceived importance in the strategy formulation process [8, 17, 21, 22]. Nevertheless, Steiner's [26] observation that the components and attributes of mission statements are among the least empirically understood issues in strategic management remains true. No empirical studies have been reported that describe the composition of mission statements, and only a few theoretical or conceptual articles suggest particular desirable communication characteristics of mission statements [12, 21]. Thus, a large sample empirical study was undertaken to examine the communication effectiveness of formal mission statements and to compare and contrast the composition of corporate and university mission statements. This article reports the findings and implications of this exploratory empirical research.

THE MISSION STATEMENT

Function

An effective mission statement defines the fundamental, unique purpose that sets a business apart from other firms of its type and identifies the scope of its operations in product and market terms [21]. When prepared as a formal organizational document, mission statements are presented under a maze of labels, such as "creed statement," "statement of purpose," "statement of philosophy," statement of "what is our business," or statement "defining our business." Yet, regardless of the label, a statement of business mission provides the foundation for priorities, strategies, plans and work assignments [10]. It is the starting point for the design of managerial jobs and structures. It specifies the fundamental reason why an organization exists [18]. A mission statement should create an identity larger than the limits placed on the firm by individuals themselves. Avoiding detail allows a mission statement breadth of scope; it provides for generation and consideration of a range of feasible alternative objectives and strategies without unduly stifling management creativity [26].

Mission Statement Component

Although no empirical research has been published regarding mission statement development, limited evidence is available that suggests some desirable mission statement components. For example in a classic article, Pearce [21] suggests that there are eight key components of mission statements: (1) target customers, (2) basic products or services, (3) primary markets, (4) principal technology, (5) concern for survival, growth, and profitability, (6) company philosophy, (7) company self-concept, and (8) concern for public image. Additional evaluation dimensions may also be important.

Communication Attributes

Mission statements that include all of the previously mentioned components, but are not communicated clearly to organizational constituents would surely lose their effectiveness. David [8] and Gibson and Cochran [12] propose that the connotative meanings and emotional aspects of a mission statement are important. These researchers suggest that an effective mission statement arouses readers' emotions to be supportive of the organization. That is, an effective mission statement evokes feelings that a particular organization is successful, knows where it is going, and is worthy of the reader's time, support, and investment. The literature review for this study therefore determined that an important communication criteria or attribute for mission statements is that they be "inspiring" (written in a positive tone). An effective mission statement helps satisfy peoples' needs to produce something worthwhile, to gain recognition, to help others, to beat opponents, and to earn respect [27]. Thus, a mission statement is a general declaration of attitude and outlook and should project an inspiring tone.

A second communication attribute of mission statements that was derived from the literature review is "readability [2, 12, 14, 15]." This construct is a measure of the denotative meanings of terms - the extent to which the reader understands or shares meanings with the writer [4]. A readability measure such as the Fog Index takes into account sentence length, the total number of words, and the number of words with three or more syllables. The computed index value is then related to the approximate number of years of education necessary to easily read and understand the written message.

The present empirical investigation was undertaken specifically to test these two communication attributes (inspiring and readability) as indicators of an idealized mission statement.

METHODOLOGY

The Research Sample

The research population for this empirical investigation consisted of all the 1984 Fortune 500 companies and all the AACSB accredited business schools in the United States. A letter was mailed to the chief executive officer of each Fortune 500 company and to the Dean of the School of Business Administration at each university. The letter requested a copy of the organization's mission. A mission statement was defined in the letter as "an enduring statement of purpose that reveals an organization's product or service, markets, customers, and philosophy; a mission statement is sometimes referred to as a statement of purpose, philosophy, or creed." Responses were received from 218 of the 500 companies and from 107 of the 150 universities solicited. This represented a 44 percent corporate response rate, a 71 percent university response rate, and an overall response rate of 50 percent. For the 325 responding organizations, 61 companies and 74 universities had a mission statement which could be evaluated. The university documents used were College of Business Administration mission statements, because only a few of the deans returned formal mission statements of their university.

As indicated in Table 1, 40.4 percent of the corporations and 30.8 percent of the universities replied that their organization did not have a mission statement. Of all the responding corporations, 5.0 percent replied that their mission statement was confidential and another 26.6 percent sent material, such as an annual report, that did not specify having a mission statement. For the universities, all respondents who returned a mission statement indicated that their document was publicly available.

TABLE I:
A BREAKDOWN OF THE SURVEY RESPONSES

	Corporations	Universities	Total
	(n=61)	(n=74)	(n=35)
Number of mailings	500	150	650
	Corporations	Universities	Totals
Nonresponses	282	43	325
Responses	218	107	325
Responses replying that they had no mission statement	88 (40.4%)	33 (30.8%)	121 (37%)
Responses replying that they had a mission statement but it is confidential	11 (50.0%)	0 (3.4%)	11
Responses that sent material which we could not use	58 (26.6%)	0	58 (17.8%)
Number of usable	61 (27.9%)	74 (69.2%)	135 (41.5%)

Content Analysis

Content analysis was used to evaluate each sample mission statement. Content analysis is a qualitative research technique often used for analyzing message content and message handling [7]. It is a process of selecting a written message to be studied, developing categories for measurement, measuring frequency of appearance of the categories using coding rules, applying an appropriate statistical test to the data collected, and then drawing conclusions [5, 13, 16,]. The sample mission statements were evaluated to determine whether or not they exhibited the desirable communication attributes identified from the literature review. Two independent raters evaluated each of the 135 usable statements. Prior to evaluating the mission statements, the raters read and discussed mission statement articles and their ratings of several example mission statements.

The "inspiring" attribute was operationalized systematically whereby each rater independently asked the following key question about the sample mission statements:

> Inspiring - Is the mission statement motivating and stimulating, i.e., is it written in a positive, optimistic tone?

A mission statement was judged as being "inspiring" if the rater answered the respective question affirmatively. In this case, a value of "1" was assigned to the statement. When a particular mission statement did not "clearly" exhibit a desired characteristic, a "0" was assigned to the statement for that component.

The "readability" communication attribute was operationalized by computing the Fog Index for each sample mission statement. An example of how the Fog Index can be used to determine a readability level for a written document such as a mission statement is described in Table II.

TABLE II:
STEPS IN DETERMINING A MISSION STATEMENT'S READABILITY LEVEL

1. Compute The Number Of Words
2. Compute The Number Of Sentences
3. Compute The Average Number Of Words Per Sentence
   (Item 1 divided by item 2)
4. Compute The Average Number Of Words Per Sentence
   (Treat as hard words all words of three or more syllables, abbreviations and symbols. Do not count capitalized words, unless symbolized abbreviated.)
5. Compute The Number Of Hard Words Per 100 Words
   (Item 4 divided by Item 1 times 100)
6. Compute The Sum Of The Word Average And The Hard Word Percent -
   (Item 3 plus Item 5)
7. Compute The Fog Index Which Indicates The Readability Level -
   (Item 6 multiplied by 0.4)

Source: Adapted from How to Take The Fog Out of Writing by Robert Gunning and Dougles Mueller, Chicago, Illinois: The Dartnell Corporation, revised edition, 1981.

An average readability level of 16 was considered appropriate in this study because those who read a mission statement could reasonably be expected to have completed twelve years of secondary school and four years of college. The desirable readability level for a mission statement could obviously vary depending on the type of firm, the size of the organization, the nature of the firm's products or services, and perhaps other variables. Despite this inherent subjectivity, readability was considered to be an important communication evaluative criteria or attribute for mission statement.

Inter-rater reliability coefficients revealed no significant differences between the two independent raters' scores. Specifically, computed Chi-Square values of 3.73 and 1.80 indicated no significant difference between the two raters on their evaluation of the corporation and university statements respectively. The critical Chi-Square value was 21.67 at the .01 level of significance and nine degrees of freedom.

FINDINGS

Table III presents a percentage comparison of the communication effectiveness of corporate and university mission statements. The results indicate that corporate mission statements exhibit the "inspiring" attribute more frequently (78.68%) than the university mission statements. The findings reported in Table IV indicate that the differences are statistically significant at the .01 level.

Table III also reveals that university mission statements exhibited a very high readability index (28.75) as compared to the corporations' index of 19.59. This difference between the corporate and university mission statements is statistically significant at the .001 level (Table IV).

TABLE III
A PERCENTAGE COMPARISON OF CORPORATE AND UNIVERSITY MISSION STATEMENTS

Communication Attributes	Corporations (n=61)	Universities (n=74)	Total (n=135)
	% Frequency of Inclusion		
Inspiring	78.68	26.75	50.21
Readability[a]	19.59	28.75	24.61

[a] Not a pecentage. These numbers represent years of formal education.

TABLE IV
A COMMUNICATION COMPARISON OF COMPANY AND UNIVERSITY MISSION STATEMENTS (n=135)

Communication Attributes	Fortune 500 (n=61) Means	Univ. (n=74) Means	t-value
Inspiring[a]	00.8033	00.5676	3.04**
Readability[b]	19.5937	28.7508	-6.22***

* $p < 05$
** $p < 01$
*** $p < 001$

NOTE: [a] The range for the inspiring attribute, was 0 to 1, where 0 = mission statement did not exhibit that and 1 = mission statement did include the attribute.

[b] The range for this attribute was 9 to 30. This number represents the average years of formal education that the mission statements audience should possess in order to easily read and understand the statement.

Results from the statistical analyses offer some interesting findings:

1. Only 50% of the sampled mission statements exhibited the inspiring attribute (e.g. only 1/2 are written in a positive tone).
2. The sample corporate mission statements are written in a more positive tone than university mission statements.
3. Both sample groups of mission statements are written with a high readability level. ($X = 24.61$)
4. The sample corporate mission statements, compared to the university statements, are written in a more readable manner.

CONCLUSIONS

The finding that corporate mission statements are significantly more "readable" and "inspiring" than university mission statements is an important finding. This appears to give support to an earlier survey done by Allred and Clark [1983] that reported that business practitioners are more concerned with technical writing skills (conciseness, clarity, tone, etc.) than academicians. If this is true, universities perhaps need to increase their emphasis on teaching written communication skills. If mission statements are as important to strategic planning as prior research suggests, universities especially need to examine the communication effectiveness of their mission statements. Actually, both corporations and universities need to examine these two communication attributes to better insure that their mission statements are communicated effectively.

Unfortunately, the exploratory design of this study does not enable the determination of whether differences in the composition of corporate and university mission statements result from inherently varient needs of organizations or from the extent of firms' efforts in mission development, or for some other explanatory reasons. The findings are nevertheless important because they offer some empirical evidence regarding a recommendable communication composition of corporate and university mission statements. This information could be beneficial to practitioners involved in actually developing a mission statement. The results of this study could provide a basis for developing and investigating future research hypotheses aimed at extending management's understanding of mission statements.

Additional research is encouraged before strong generalizations can be made. For example, are there other communication attributes such as clarity, grammar, and syntacs that significantly impact the effectiveness of mission statements? How important are these variables? Hopefully, this exploratory study will stimulate additional research in this important, yet little researched, area. This study could provide some direction and impetus for future research that is needed to more fully understand the nature and role of mission statements in the strategic management process.

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READABILITY AND EFFECTIVENESS OF CANCER INFORMATION PAMPHLETS: A Preliminary Assessment

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ABSTRACT

Three pamphlets published by the National Cancer Institute were evaluated by undergraduate and MBA business communication students. The evaluation instrument was a semantic differential scale containing 26 sets of paired adjectives thought to describe effective or noneffective writing. Factor analysis reduced the 26 items to five factors which were labeled Credibility, Assurance, Ease, Attraction, and Humanness. Correlation analysis indicated little or no relationship between readability and factor scores. T-tests indicated that undergraduates and students under age 25 tended to rate the pamphlets more difficult to read than did MBA students and those over age 25.

BACKGROUND

In a review of the literature on communication processes associated with cancer, McIntosh [8] observed that much of the literature has concentrated on the debate about whether the patient should be told that he or she has cancer. McIntosh argued that the current understanding of communication processes associated with cancer is inadequate.

The dominant attitude among cancer-oriented practitioners today appears to be that the patient should be told the diagnosis in clear, understandable terms as soon as possible [5]. One area now requiring research attention is the role of communication to enhance the quality of life for the patient and the patient's significant others after they have been informed of the diagnosis. When confronted with a confirmed diagnosis of cancer, cancer clients* experience ambiguity, confusion, and fear; they also experience intense need both to clarify what is happening to them and to receive support and reassurance from others [10]. However, there are indications that patients would like to receive more information than they are normally given, particularly in the initial stages of the disease [1;8].

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*For simplicity, the term "cancer client" will be used to designate the cancer patient and her or his significant others.

Health-care professionals have adopted various communication modes to help cancer clients deal with their uncertainties and fears. Those modes range from the use of pamphlets about the disease and its treatment to individual or group counselling strategies. Few studies, however, have been conducted to assess the effectiveness of such measures to satisfy cancer clients' needs for information [10;4]. In an analysis of 36 cancer rehabilitation programs, it was reported that 27 (72%) of those programs made provision to evaluate effectiveness; however, in only 5 (11%) of the programs was the evaluation research based [6].

Most patient-assistance programs employ three types of intervention: educational, counselling, and environmental [10;4;3]. Educational intervention focuses on providing the cancer client with information about the disease, its treatment, likely side effects of treatment, possible emotional responses, and ways to relieve physical and emotional discomfort. Counselling intervention encourages exploration and expression of past and present feelings in a supportive environment. Environmental intervention consists of speaking with health-care personnel about the patient and making formal health-service referrals [4].

The existing literature which evaluates intervention programs centers primarily on the efficacy of interpersonal (counselling) communication modes to relieve stress and promote recovery or adjustment to the disease [3]. Yet in one study, breast cancer patients and their physicians ranked written pamphlets higher in importance than individual counselling as resources for crisis intervention, with patients ascribing greater significance to written materials than did their doctors [7].

Apparent faith in the effectiveness of the written word to reduce cancer-related ambiguities and stresses is expressed in the introduction to "What You Need To Know About Cancer of the Lung," a National Cancer Institute Publication [9].

> This pamphlet is written for you, the cancer patient.
> It may also be useful for members of your family.
>
> We believe it is important for you and your family
> to understand your illness so you can face it together,
> with courage and hope.

Those or similar words appear in each of the set of 26 pamphlets published by the National Cancer Institute (NCI). A pertinent question in health-care management is whether such publications do indeed contribute to the satisfaction of information needs and to improved quality of life. No research has been located which specifically addresses that issue. A casual assessment of the pamphlets raises questions about readability and effectiveness.

STATEMENT OF THE PROBLEM

The general objective of this study was to further the understanding of the role of written communication in the physician-client communication process. The research reported here is part of a larger project designed to answer questions about the comparative effectiveness of different types of written materials in meeting cancer clients' needs for information. Specifically three questions were analyzed:

1. What is the readability level of these pamphlets?

2. How do readers react to the pamphlets?

3. What relationships, if any, exist between readability (as defined by standard readability indexes) and reader reactions?

METHODOLOGY

Three NCI pamphlets were selected for analysis: "What You Need To Know About Cancer of the Breast," "What You Need To Know About Cancer of the Colon and Rectum," and "What You Need To Know About Cancer of the Lung." Those three were selected because at the time of the study breast cancer was the most frequent cause of cancer death in females, lung cancer was the most frequent cause of cancer death in males, and colorectal cancer was the most frequently occurring cancer in persons over 40 years of age. Dale-Chall, Flesch, Fry, and Gunning readability indexes were computed via computer for each pamphlet.

On the premise that a reader's initial reaction to a message has an impact on message effectiveness, students in undergraduate (N=38) and MBA (N=55) business communication classes were asked to record their initial reactions to the pamphlets. The students were instructed to read the first page of the pamphlet, to page through the booklet, reading the headings and glancing at the pictures, and then to select and read two sections of the pamphlet. After having read the pamphlet in that way, students registered their assessments of the pamphlets on a semantic differential scale containing 26 pairs of adjectives (e.g. easy, difficult; helpful, not helpful; assuring, frightening). Participants also provided limited demographic data.

A classification of participants by pamphlet read and various demographic characteristics (Table 1) shows that 65 percent of the participants had had previous experience with cancer, defined as self or significant other having had cancer. While the sample cannot be construed to represent the typical cancer client, this statistic suggests that a substantial percentage of the group had at one time felt the ambiguity and fear associated with a cancer diagnosis. The predominance of young (under age 25) participants also precludes generalization to a broader population of cancer clients. Nonetheless, the findings suggest possible research directions for communication researchers.

Descriptive statistics, factor analysis, Chi-square tests, and correlation analysis were used for data analysis.

TABLE I. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

	Sex		Grade Level		Previous Cancer Experience		Age	
Pamphlet Read	F	M	UG	MBA	Yes	No	-25	25+
Breast	14	12	12	14	20	6	23	3
Colorectal	14	19	13	20	19	14	23	10
Lung	11	23	13	21	21	13	23	11
Total	39	54	38	55	60	33	69	24
%	42	58	41	59	65	35	74	26

RESULTS

Readability Scores

To answer the first question, readability scores were computed for each pamphlet. The scores were based on 100-word passages taken from four sections of each pamphlet: Page 1, and sections on description, diagnosis, and treatment of the disease.

Readability grade-level scores ranged from 8 to 15 (Table II). Such scores suggest that a substantial percentage of the United States public may be unable to read and comprehend the messages. In 1981 the median school years completed by U.S. citizens age 25 and over was 12.5, but approximately 30 percent of the 25+ population had left the formal education system prior to completion of high school [11]. Furthermore, educators are well aware that reading level often lags grade-level completion. If readability scores have any validity, a tentative conclusion is that these NCI pamphlets have limited value in satisfying cancer clients' needs for information, with possibly 25 percent of the U.S. citizenry unable to comprehend the written messages.

TABLE II. READABILITY INDEXES OF CANCER INFORMATION PAMPHLETS

Readability Formula	Grade Level by Pamphlet		
	Breast	Colorectal	Lung
Dale-Chall	13-15	13-15	13-15
Flesch	13.5	10.7	10.2
Fry	11.0	9.0	8.0
Gunning	14.2	11.4	12.2

However, several limitations of readability formulas have been exposed in the communication literature. Battison and Goswami [2] exhorted researchers to examine readers' understanding and use of documents rather than properties of the documents such as sentence length, word length, and syllabic intensity. Selzer reminded researchers that comprehension is the result of a particular reader's interaction with a particular text [10, p. 26] and concluded that "matters like readers' background information, interest, and motivation affect the comprehension of words more than their length." [10, p. 28] Such criticisms of readability scores suggest the need to analyze relationships between reader reactions and readability measures.

Readers' Reactions to Pamphlets

Initial analysis of responses on the semantic differential scale revealed a positive skew (Table III). Mean scores ranged from 1.74 to 4.10 on a six-segment scale with 1 representing the positive pole and 6 the negative pole of each adjective pair. Few responses fell in the fifth and sixth scale segments on any pair of adjectives. Therefore, the scale was compressed to a four-point scale in which all responses in the fourth, fifth, and sixth scale segments were coded 4. After scale compression means ranged from 1.75 to 3.62.

An examination of an intercorrelation matrix of the items indicated that several correlated highly with one another, suggesting the existence of some underlying constructs used in reacting to the pamphlets. Consequently, the items were subjected to principal components factor analysis (Varimax rotation) in an attempt to describe those constructs. Analyses using both the original scale and the compressed scale were performed. Since results were virtually identical, the original scale values were used for the accepted factor solution and all subsequent analyses.

An analysis in which the number of factors to be extracted was unspecified yielded 6 unrotated factors with eigenvalues above 1, the criterion commonly used to designate the initial number of factors to be rotated. The unrotated factors accounted for 66.4 percent of the variance among respondents. After the results of several solutions specifying different numbers of axes were examined, a five-factor solution was accepted as that which most nearly approximated simple structure with interpretable dimensions (Table IV). Based on an examination of the rotated matrix, .50 was designated as the loading cutoff level, a point at which there were no bi-polar items and no negative loadings.

Naming of the dimensions resulted from examination of the individual items loading on each factor. Items loading on Factor 1 could describe both content and style of a message. The interrelatedness of those descriptors suggest that style and content work together to establish the credibility of a document or its author. Consequently, that factor was named Credibility. Items loading on Factors 2, 4, and 5 were descriptors commonly associated with writing tone. Their separating on three factors, however, suggests that "tone" as often used by business communicators is a multidimensional concept. In this study, respondents apparently recognized three aspects of tone: one that attracted them (or did not) to the literature (Factor 4); one that reassured them (or did not) while reading (Factor 2); and one that spoke to them (or did not) uniquely as humans (Factor 5). Those factors were, therefore, named Assurance (Factor 2), Attraction (Factor 4), and Humanness (Factor 5). Factor 3 was named Ease since the items loading on it were descriptors commonly associated with contributing to or detracting from reading ease.

TABLE III. MEAN VALUES OF ADJECTIVE PAIRS

Adjective Pair	Mean[1] Before Scale Compression	Mean[2] After Scale Compression
Easy/Difficult	2.03	2.00
Vivid/Vague	2.40	2.39
Warm/Cold	2.89	2.76
Helpful/Not Helpful	1.89	1.86
Colorful/Dull	3.35	3.10
Non-Technical/Technical	3.40	3.16
Specific/Abstract	2.38	2.36
Relevant/Irrelevant	1.95	1.91
Balanced/Unbalanced	2.21	2.19
Informative/Not Informative	1.74	1.72
Soothing/Irritating	2.63	2.59
Neat/Cluttered	1.98	1.99
Useful/Not Useful	1.74	1.75
Non-threatening/Threatening	2.49	2.37
Personal/Impersonal	2.67	2.53
Coherent/Incoherent	2.02	2.03
Attractive/Repulsive	2.93	2.82
Clinical/Non-clinical	3.70	3.38
Positive/Negative	2.41	2.39
Realistic/Unrealistic	2.00	1.99
Organized/Disorganized	1.90	1.91
Assuring/Frightening	2.89	2.75
Non-Medical/Medical	4.10	3.62
Human/Non-human	2.22	2.20
Clear/Unclear	1.94	1.95
Alive/Dead	2.64	2.63

[1] 6-segment scale; 1=positive pole, 6=negative pole

[2] 4-segment scale

TABLE IV. FACTOR STRUCTURES OF READERS' REACTIONS TO PAMPHLETS

Descriptors	Factor Loadings				
	Credibility	Assurance	Ease	Attraction	Humanness
Clear/Unclear	.80				
Useful/Not Useful	.79				
Informative/Not Informative	.78				
Organized/Disorganized	.76				
Relevant/Irrelevant	.71				
Specific/Abstract	.69				
Neat/Cluttered	.67				
Helpful/Not Helpful	.64				
Coherent/Incoherent	.63				
Vivid/Vague	.61				
Realistic/Unrealistic	.60				
Balanced/Unbalanced	.50				
Assuring/Frightening		.77			
Non-threatening/Threatening		.76			
Positive/Negative		.74			
Soothing/Irritating		.60			
Non-technical/Technical			.79		
Non-clinical/Clinical			.69		
Non-medical/Medical			.65		
Easy/Difficult			.59		
Colorful/Dull				.74	
Attractive/Repulsive				.69	
Warm/Cold				.62	
Alive/Dead					.76
Human/Non-human					.67
Personal/Impersonal					.58
Percent of Common Variance (62.4%)	31.3	13.4	7.7	5.2	4.7

After the factors were identified, factor scores were computed for each participant. The factor score consisted of the average rating the individual gave to the items loading on each factor. Scores for each pamphlet (pamphlet scores) were then computed by averaging the factor scores of individuals grouped by pamphlet read. Those factor scores and pamphlet scores were used to examine relationships among readers' reactions to pamphlets, readers' demographic characteristics, and readability scores.

Relationships Between Readability, Reader Characteristics, and Reader Reactions

Overall pamphlet scores varied little, as did ratings of pamphlets on separate factors (Table V). T-test analysis revealed two statistically significant differences among mean ratings. The 3.35 rating on Factor 4 (Attraction) for the lung cancer pamphlet was significantly higher than the 2.81 rating given to the breast cancer pamphlet (t-value=2.25; p=.03), and the 2.85 rating given to the colorectal cancer pamphlet (t-value=2.15; p=.04) on that factor. These statistics suggest that some aspects of tone caused readers to be less attracted to the lung cancer materials than to the other two pamphlets.

TABLE V. MEAN FACTOR SCORES AND PAMPHLET SCORES
BY TYPE OF CANCER DESCRIBED

Factor	Breast	Colorectal	Lung	All
Credibility	2.04	2.00	2.14	2.06
Assurance	2.65	2.55	2.83	2.68
Ease	3.46	3.61	3.32	3.45
Attraction	2.81	2.85	3.35	3.03
Humanness	2.54	2.39	2.54	2.49
Overall Pamphlet Score	2.70	2.68	2.80	2.73

Chi-square analyses of factor scores and pamphlet scores by grade level, age, sex, and previous experience with cancer revealed six relationships that merited further analysis: Factors 1, 2, and 4 by sex; Factors 3 and 4 by age, and Factor 3 by grade level. Each of these cross tabulations had yielded a Chi-square statistic with a significance level of .10 or less. T-tests on those factors with participants grouped by the appropriate variable (sex, age, or grade level) yielded two significant differences. On the Ease factor, ratings of undergraduates ($\bar{X}$=1.97) were significantly higher than those of MBA students ($\bar{X}$=1.71; t-value=2.36; p=.02). Similarly, ratings on the Ease factor by students under age 25 ($\bar{X}$=1.88) were higher than those by students over age 25 ($\bar{X}$=1.63; t-value=2.11; p=.04). These statistics suggest that the younger, less educated readers found the materials to be more difficult than did the older, more educated readers.

Correlation analyses showed low correlations of readability indexes with pamphlet scores and factor scores (Table VI). Only one significant correlation was computed; the Fry index correlated negatively ($r=-.21$; $p=.04$) with the Attraction factor. The low correlations indicate little or no relationship between standard readability indexes and readers' reactions to these written materials when evaluated by typical effectiveness criteria.

TABLE VI. CORRELATIONS OF READABILITY INDEXES WITH FACTOR SCORES AND PAMPHLET SCORES

	Correlation Coefficients					
Index	Pamphlet Score	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Dale-Chall	*	*	*	*	*	*
Flesch	-.06	-.04	-.06	.04	-.19**	.01
Fry	-.06	-.05	-.07	.06	-.21***	.01
Gunning	.00	.01	.03	-.05	-.05	.06

* Correlation coefficients could not be computed
** p=.06
***p=.04

CONCLUSIONS AND RECOMMENDATIONS

Given the nature of this sample, only very tentative conclusions can be drawn.

1. Based on readability scores alone, it appears that the NCI pamphlets would have limited value in conveying sought-for information about cancer to U.S. readers.
2. The materials appear to be sufficiently credible, assuring, easy to read, attractive, and human to suggest that they could be effective communication devices among college-educated cancer clients.
3. Personal characteristics such as sex and previous experience with cancer appeared to have little influence on assessments of credibility, tone, or reading ease.

4. Personal characteristics such as educational level and age appeared to have some influence on assessments of reading ease.

5. The preponderant negative correlations of readability indexes with the Credibility, Assurance, Attraction, and Humanness factors along with the non-significant correlations with the Ease factor suggest that readability formulas are deficient as measures of effective writing.

This study has been a preliminary attempt to assess effectiveness of written information regarding cancer. The surface of a vast area of research has merely been scratched. The health care industry has apparently committed itself to use of written communication in attempts to educate the public about prevention and treatment of many diseases, as is evident by the many pamphlets available in medical offices and pharmacies. A fruitful area of research for communication professionals would be to help define patients' information needs and to explore more fully how writing characteristics interact with human characteristics in achieving message effectiveness.

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COMMUNICATING IMAGE IN ANNUAL REPORTS: HAS CREATIVE WRITING ELIMINATED DIFFERENCES?

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ABSTRACT

Annual reports have become creative and exciting corporate communication tools. Their purpose is to present an image of the company. Is it possible that the writers of annual reports have become so creative that the reports present only positive images and minimize any actual differences among company performances? Fifty-three students evaluated eight annual reports by reviewing the presidents' messages and the photos. The results of eight separate dimensions indicated that significantly different messages were presented. The images presented in the presidents' message and photos related to actual company performance. Creative writing and photography did not result in drastically altered images is the conclusion.

INTRODUCTION

For many years annual reports were bland publications. In the mid 1950's, however, new ideas of advertising swept through the U.S. and the idea of corporate image took hold. Annual reports were changed into communication tools in which new concepts of creative writing and visual expressiveness presented the virtues of the corporation [7]. By the late 1970's, America's 15,000 publicly held companies were spending more than $120 million a year to showcase and distribute a minimum of 50 million copies of their annual reports, which amounts to about $2.50 per copy [2].

THE IMPORTANCE OF ANNUAL REPORTS

Ten years ago it was stated that the annual report probably does more to create corporate image than any other single vehicle, but far too many companies ignore its potential [11]. In the past, corporate advertising, product publicity and marketing were each content to concentrate on their own individual messages. By incorporating all of these areas into an overall corporate communications program it is possible to increase efficiency. Management began to see the annual report as an excellent opportunity to bring together these elements of corporate communications.

Presently, it is well understood that companies which just put a cover on their 10-K reports and send them to their stockholders are not maximizing communication potential. Annual reports make it possible to tell stockholders with interesting text and pictures what the company is doing [13]. While annual reports contain much financial information, they can also be used to market companies' products or services, portray social responsibility, act as public relations tools and serve as employee orientation devices. Companies employ top rated illustrators and copywriters to accomplish this; even rewards are given for the best annual report. Today, many companies attach as much importance to packaging their financial reports as they do to packaging consumer products [2].

ANNUAL REPORTS AS COMMUNICATION DEVICES

The annual report is considered by most public relations professionals to be the single most important, complicated, frustrating, demanding, and when it's over, satisfying corporate communications job of the year [12]. The project represents the ultimate challenge of audience analysis because the company needs to determine who the various audiences are and what they want to know. The average company may print four to five times the number needed for shareholders. The additional copies are for employees, customers, the press, students, the general public and all other non-shareholder audiences. Annual reports should be informative and interesting to all these various readers [12].

Annual reports can be used to reinforce well planned corporate identification and instill in the investor a feeling of confidence in the company. While some annual reports only fulfill SEC requirements, most attempt to build corporate image and promote sales. The annual report is the primary source of information about the company to its investors. In a survey of potential investors, over 80% read the annual reports either completely or briefly while over 42% of these people read 10 to 15 annual reports a year. However, of 16 items included in annual reports, the 6th highest item of interest to these investors was the letter to the shareholders [3].

Corporate Image

For many companies the annual report is the main outlet for summarizing, forecasting and visually projecting images. The annual report is both a financial document and a promotional piece. They are designed to attract and inform stockholders, analysts, employees, suppliers and the press. Most companies strive to develop a progressive image and they use their annual reports to do so. Public relations practitioners contend that the annual report is the most important element in creating a corporate image [11].

A positive image as perceived by the corporations' many publics is the key to success [10]. The corporate image, the impression of a company held by its various publics, is important because people act on impressions and both internal and external publics as well as employees are affected by image [9]. A good corporate image should result in more inquiries about the company, increased awareness of the company, favorable publicity, easier recruiting and lower turnover [9]. A favorable public image is central to the achievement of organization goals and a lack of one can be devastating [8]. The attributes most desired in corporations in the early 1980's were stability, innovativeness, a contemporary approach and concern for customers [10].

Companies also merchandise their products through annual reports. In this age of conglomerates many shareholders as well as the public don't even know all the products companies represent. When a company has a good image the public is more likely to assume it has good products, is more likely to buy its products and is more likely to be on the company's side.

The Corporation and Its Publics

As corporate life and activities blend more closely with other facets of society, the annual report is becoming increasingly important as a corporate image device, as a communications channel and as a marketing tool for various publics [2]. One trend is that companies are making more efforts to feature employees in their annual reports. More employees are becoming stockholders and are an important public with whom the company wants to communicate [5]. Concern for employee welfare is shown through pictures and words. Another trend is that annual reports are seen as an excellent way for recruiting executives and educating college students [13].

THE CURRENT STATUS OF ANNUAL REPORTS

Those responsible for the annual report understand it can be an important medium for a company positioning itself in a competitive environment. They know the annual report should contain material on the company's strategy and should create better internal planning as well as better external communication. The annual report should be tailored to externally position the company to fit long term strategy goals. It is understood once its focus is determined, emphasis should be placed on the visual impact and readability that will show a growing, dynamic, sophisticated company.

Annual reports reinforce companies' strengths and address weaknesses. It is an official financial document with a high credibility but up to 60% of each annual report is used for non-financial purposes, from recruiting personnel to showing product applications. The message from the President and the pictures accomplish this mission. Presently the reports are creative and exciting [6].

THE PROBLEM

Have annual reports become too creative [4]? Is it possible that writers have creatively minimized corporate problems to such an extent that firms may be distorting weaknesses and glamorizing successes? The report's appearance seems to be as important to the corporate image as the content of its profit and loss statements [1]. Could a public distinguish the company's status based on the message from the president and the pictures? Or has this been manipulated to the point it is no longer meaningful?

These questions are important as more and more citizens become interested in business and review annual reports. Unfortunately, many do not understand the financial disclosure sections so they rely on the written and visual segments of the reports. Is it possible that these sections are creatively manipulated so that the publics can no longer detect any differences among companies?

THE STUDY

Hypothesis

The major hypothesis for this study was:

> No major difference exists in the image conveyed by the president's message and pictures in annual reports.

Population

The population consisted of 53 business students at a state university. The evaluation of specified annual reports was a course requirement for the students. Potential test questions were drawn from the reports to provide an incentive for the students to complete the project.

Measurement Device

The students used an evaluation form which had 8 different 7 point scales (see Table 1). The 8 scales listed in Table 1 were divided so that 4 related to the annual report and 4 to the company. These eight scales were drawn from the literature on

TABLE 1

Eight Scales Used to Evaluate Annual Reports and the Companies They Represent

Is the Company								
innovative	1	2	3	4	5	6	7	complacent
product oriented	1	2	3	4	5	6	7	employee oriented
exciting	1	2	3	4	5	6	7	dull
growth oriented	1	2	3	4	5	6	7	dormant
Is the Annual Report								
negative	1	2	3	4	5	6	7	positive
informative	1	2	3	4	5	6	7	secretive
clear	1	2	3	4	5	6	7	ambiguous
comprehensive	1	2	3	4	5	6	7	incomplete

corporate image. The positive and negative component of the eight scales were randomly reversed in order to avoid a response set. The clarity of the device was tested with a pilot group. Students were told to read only the message from the president and review the pictures in each report.

Analysis

A one-way analysis of variance tested the differences among the annual reports on each of the eight different scales. This resulted in eight one-way analysis of variance. When the F value was significant, an a posteriori analysis using Duncan's procedure identified the specific differences.

Annual Reports

The study evaluated the images of eight different annual reports and companies of Fortune 500 companies. Four of the reports were from pharmaceuticals (Squibb, Sterling, Upjohn, Eli Lilly) and the other four were from the glass, concrete, abrasive, gypsum group (Lone-Star, United States Gypsum, Libbey-Owens and PPG). Companies were not included that may have developed strong prior impressions. Companies with recent major media exposure such as Johnson and Johnson (Tylenol) were excluded. Also, companies with large consumer groups such as Proctor and Gamble were not included.

RESULTS

The results of the eight one-way analysis variance are presented in Table 2. Seven of the eight F tests were significant at the .05 level. The only scale which was not significant among the reports was the clarity/ambiguity of the reports.

TABLE 2

One Way Analysis of Variance

Dimension	F-value	Mean **
negative/positive	4.22*	5.31
informative/secretive	6.61*	2.97
clear/ambiguous	1.19	2.86
comprehensive/incomplete	11.46*	2.91
innovative/complacent	34.51*	2.80
product oriented/employee oriented	22.78*	2.9
exciting/dull	12.66*	3.58
growth oriented/dormant	9.39*	2.52

*Significant at the .05 level.
**A seven-point scale was used. The word on the left was represented by a 1 and the word to the right by 7.

A Duncan _a posteriori_ analysis was conducted on the seven scales which were significant. These results are indicated in Tables 3-9.

TABLE 3

Comparison of Companies
Positive/Negative Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Positive	Sterling	5.77	1,7
	Squibb	5.58	1
	Eli Lilly	5.50	1
	U.S. Gypsum	5.43	1
	Upjohn	5.25	1
	Libbey Owens	5.21	1
	PPG	5.19	1,4
Negative	Lone Star	4.56	2, 3, 4, 5, 6, 7, 8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

TABLE 4

Comparison of Companies
Informative/Secretive Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Informative	Upjohn	2.38	1,2,4
	U.S. Gypsum	2.57	1,2,4
	Libbey Owens	2.68	1,2
	PPG	2.71	1,2
	Eli Lilly	2.94	1
	Sterling	3.27	1,3,6
	Squibb	3.36	3,5,6,7
Secretive	Lone Star	3.88	3,4,5,6,7,8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

TABLE 5

Comparison of Companies
Comprehensive/Incomplete Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Comprehensive	Upjohn	2.23	1,2,4,7
	Libbey Owens	2.30	1,2,4,7
	Eli Lilly	2.62	1,4
	U.S. Gypsum	2.66	1,4
	PPG	2.90	1,5,6,
	Squibb	3.09	1,5,6
	Sterling	3.37	1,3,5,6,8
Incomplete	Lone Star	4.15	2,3,4,5,6,7,8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

TABLE 6

Comparison of Companies
Innovative Complacent Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Innovative	Eli Lilly	1.62	1,2,3,4,6,7
	Libbey Owens	1.81	1,2,3,4,7
	Upjohn	2.25	1,2,3,4,8
	PPG	2.34	1,2,3,4,5,8
	Sterling	3.06	1,2,5,6,7,8
	U.S. Gypsum	3.10	1,2,5,6,7,8
	Squibb	3.85	1,3,4,5,6,7,8
Complacent	Lone Star	4.48	2,3,4,5,6,7,8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

TABLE 7

Comparison of Companies
Employee Oriented/Product Oriented Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Employee Oriented	Sterling	4.72	1,2,3,5,6,7,8
	U.S. Gypsum	3.46	1,2,4,5,6,8
	PPG	3.08	1,4,6
	Libbey Owens	2.85	1,3,4,6
	Eli Lilly	2.79	1,3,4,6
	Squibb	2.55	1,3,4,6
	Upjohn	1.89	2,3,4,5,7,8
Product Oriented	Lone Star	1.88	2,3,4,5,7,8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

TABLE 8

Comparison of Companies
Exciting/Dull Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Exciting	Eli Lilly	2.87	1,2,3,4,7
	Libbey Owens	2.87	1,2,3,4,7
	Upjohn	3.09	1,2,3,4
	PPG	3.47	1,2,5,8
	Sterling	3.72	1,5,6,8
	U.S. Gypsum	3.78	1,5,6,8
	Squibb	4.19	1,5,6,7,8
Dull	Lone Star	4.73	2,3,4,5,6,7,8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

TABLE 9

Comparison of Companies
Growth Oriented/Dormant Dimension

Dimension	Company	Mean	Significantly Different From Companies*
Growth Oriented	Eli Lilly	2.10	1,2
	U.S. Gypsum	2.17	1,2
	Upjohn	2.21	1
	Libbey Owens	2.38	1
	Sterling	2.39	1
	PPG	2.47	1
	Squibb	2.73	1,3,8
Dormant	Lone Star	3.75	2,3,4,5,6,7,8

*Company 1 - Lone Star 2 - Squibb 3 - U.S. Gypsum 4 - Sterling
5 - Libbey Owens 6 - Upjohn 7 - PPG 8 - Eli Lilly

Tables 3-9 become more meaningful when the actual performance of the 8 companies are compared. Table 10 compares the eight companies growth rate over the preceding ten years, the Earnings Per Share in 1982 and 1983, net income as a percent of sales, and Moody's evaluation of the common stock quality. Given this information, the companies were ranked from 1 through 8 on their performance.

TABLE 10

Ranking of Companies by Authors

Rank	Company
1	Eli Lilly
2	Upjohn
3	PPG
4	Squibb
5	U.S. Gypsum
6	Libbey Owens
7	Sterling
8	Lone Star

DISCUSSION

Creative writing in annual reports apparently has limitations. This statement is made assuming the creators of the reports were attempting to develop as positive and dynamic image as possible for their companies. Significant differences were detected in these annual reports even though they use positive messages from the president and creative visual arts.

An interesting finding is that no differences exist on the clarity/ambiguity dimension. This indicates that the annual reports are equally clear; hence, it can be assumed that they are equally well written. However, the differences among the reports indicate that the writing and visual presentations did not "neutralize" the image so that all were perceived as equal.

All eight annual reports were high quality publications, only Libbey Owens contains black and white photos. But in 7 of the 8 dimensions surveyed there were significant differences between the companies. Apparently the reports were presenting different images.

Eli Lilly, ranked as the number one company by the authors, received overall high marks from the survey as well. Evaluators saw it as the most exciting, innovative and growth oriented company. The authors ranked Upjohn second and the survey evaluators rated it high also. The survey saw it as the most informative and most comprehensive report. The annual reports of these companies seem to present accurate images. Eli Lilly and Upjohn had positive information to convey and apparently were successful in presenting it through the photos and message from the president.

At the other extreme was Lone Star. The authors and the survey ranked it as least desirable on every dimension surveyed. Though its pictures appeared to be as high a quality as those of the other companies and it can be assumed professional editors were involved, the image presented in its annual report seems to be representative of the company's actual performance: rather negative. The message from the president is the shortest in the survey and apparently tells it like it is.

Sterling, on the other hand, was ranked low on actual performance by the authors but was viewed favorably in the survey. It was seen as the most positive annual report and most employee oriented of the companies even though its performance was the lowest of the pharmaceutical companies. Does this mean that Sterling, which had the longest message to the shareholders, is using its message and photos to distort the facts? The company was perceived as employee oriented even though it was the only pharmaceutical that had terminated employees. Is Sterling presenting an image to its publics which does not represent how the company is actually performing?

PPG, ranked third by the authors, is lowly ranked in the survey. While Sterling presents an image that is seemingly better than actual performance, PPG presents an image that is worse than its actual performance. From this it may be concluded that the image communicated is not directly correlated to company performance.

Do these findings indicate that Eli Lilly, Upjohn and Lone Star are more socially responsible than Sterling, since the images presented in their annual reports more accurately reflect their performance? Do the findings indicate that Lone Star isn't being fair to itself and should instead try to present a more favorable image? A positive image is important even in bad times but Lone Star is not using the tools available to communicate a positive image.

The image presented in annual reports seems to depend on the company and its leadership. While the image presented can differ from actual performance, it seems that image and performance are closely tied together. In the annual reports studied here, creative writing and photography did not result in the communication of drastically altered images.

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HOW WILL WE EDIT ELECTRONICALLY TRANSMITTED TEXT?

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ABSTRACT

Editing is an important communication activity that is performed throughout the business and professional world. For generations, publications specialists, managers, and others have annotated paper copies of the drafts they were editing using marginal comments and the traditional set of symbols. Increasingly, however, documents are being edited on computer terminals, and edited texts are being transmitted electronically between the author and editor. This conversion to electronic editing will necessitate new procedures for text annotation. This paper reviews the problem of text annotation in electronic editing, suggests a set of requirements for acceptable annotation procedures, analyzes and assesses the procedures that are evolving, and addresses the need for the standardization of procedures.

INTRODUCTION

Editing can be defined as the act of improving the expression and content of another person's written work. It is performed throughout the professional world by a very broad range of individuals. In organizations of all kinds, superiors regularly edit, in an informal way, the drafts of their subordinates [2;6]. Likewise, peers often collaborate on documents and edit one another's contributions. Finally, business and technical communicators, working in publications departments and elsewhere in organizations, regularly edit, as a formal professional activity, materials being prepared for publication. Clearly, a wide range of professionals are at least part-time editors, and clearly editing is a prevalent and important activity in the professional world.

For generations editing has been performed on paper drafts using a set of symbols called "editors'" or "proofreaders'" marks. These symbols, as will be shown, work well. However, with the transition to fully integrated computer systems and the electronic office, editing on hardcopy is becoming obsolete and with it any system of editing that is tied to hardcopy editing.

Organizations can now almost instantly transmit documents between terminals or networked computers located in different offices of the same building or in different countries. Furthermore, work assignments increasingly reflect this capability—individuals at different sites very often can and therefore are expected to work together efficiently. But traditional "blue pencil" editing hinders professional communication in the electronic age. While most text can be telecommunicated almost instantly, edited text is very often mailed. While most text can be stored magnetically, edited hardcopy is regularly stored in file cabinets.

Many organizations are now recognizing that traditional editing procedures can significantly hinder the power of the computer to automate both publications departments and the entire professional workplace. At The Boeing Company, this problem has been recognized by a number of individuals, including David Becker, who manages the automation of new-business proposal production for The Boeing Aerospace Company's graphics organization. Becker reports that "The conversion from hardcopy to online editing represents an important factor in improving productivity and throughput, but is a problem that has particularly resisted solution (personal communication, 8/8/85)." Becker also observes that this problem has been recognized by many individuals in other organizations who are concerned with the communication function. In addition, the problem along with some proposed solutions has recently received attention in the technical communication literature [1;3;5;7]. Finally, in the last few years, manufacturers of electronic publishing systems have grappled with the problem and, as will be shown, have implemented solutions that are at least viable and in some cases, highly innovative. The purpose of this study is to provide what is very likely the most broadly based review and analysis of the problem of text annotation in electronic editing and with it an assessment of possible solutions.

PRELIMINARY DISTINCTIONS

It will be good to begin by observing that editors annotate the texts they work on by means of both **marks** and **comments**. The marks, which are generally the traditional set of editors' (or proofreaders') marks, consist largely of nonverbal symbols and are, for the most part, written (or "encoded") within the text, though at times, most notably the marking of lengthy insertions, the margins or even separate sheets are used. The purpose of these marks is to signify specific changes the editor wishes to make. They are read ("decoded") generally by the author, who accepts or rejects the emendations, and they may be read later by a keyboardist such as a typesetter and by other production personnel.

Comments consist of the questions, explanations, justifications, and other remarks the editor sends to the author and may receive from the author. They are verbal and are normally placed outside the text area. It is possible for editors to use comments to indicate emendations when no accompanying message is called for, as in: "Delete 'electrostatic.'" Or: "The 'F' in 'Federal' should be lowercase." This procedure, however, is considerably less efficient than the use of marks and is therefore seen infrequently in traditional editing.

In traditional editing, the editing marks directly overlay the text, and comments are generally placed in the margins and are often keyed to the corresponding junctures in the text with lines or arrows. It can be said, then, that in traditional editing the decoder enjoys ready "ocular access" from a particular juncture in the original to a corresponding mark or comment. But in many of the new text annotation procedures comments are used exclusively, and in some of these procedures, ocular access from a juncture in the original to a comment on that juncture is less convenient, reducing the overall efficiency of use for that procedure.

A final distinction to be made is that between "silent" and "explicit" emendations. In traditional editing all emendations, even the most clear-cut and mechanical ones, must be marked on the original. Even though the author may have no interest in these emendations, they must be marked for the benefit of the typesetter, who rekeyboards the entire text. In this era, however, there is generally no second keyboarding; once emended by the editor, the text can be typeset directly through electronic means. Consequently, it is now feasible for the editor to make silent emendations rather than to call all emendations to the author's attention.

INADEQUATE PROCEDURES CURRENTLY IN USE

Electronic editing is often performed today using two inadequate procedures for text annotation, procedures that are at best limited only to certain circumstances. The first of these procedures is for the editor to edit "destructively"—simply creating an emended version of the document—and for the author to review the emended version without referring to the original. This procedure, however, has two major drawbacks: (1) there is no provision for editor and author to exchange comments, and (2) the author must rely exclusively on memory and subject-matter knowledge to catch any errors that the editor may have unwittingly introduced into the document. This procedure is acceptable to those individuals who are unconcerned about the ways in which their texts may have been altered and who trust themselves to catch errors in content without referring to their original version. But the procedure is almost certainly inadequate for general use in most organizations.

The second inadequate procedure is for the editor to simply create an emended version of the document and for the author to review the emendations by glancing back and forth between the emended version and the original version displayed on a computer-screen window, a separate monitor, or even hardcopy. As before, this dual-text procedure includes no provision for the exchange of comments between editor and author. Furthermore, the degree of ocular access between any emendation and the corresponding juncture in the original is very poor. Not only is the process of glancing back and forth tedious and time-consuming, but scrolling and character-string searching may also be necessary to find the corresponding junctures in the original. This procedure may be acceptable where documents receive only light editing or where the authors only wish to check a few portions of the edited text against the original or among individuals who are rarely edited. But most organizations and certainly all publications units of organizations will need to find a more efficient procedure.

REQUIREMENTS FOR ADEQUATE TEXT ANNOTATION PROCEDURES

In order to determine what procedures for text annotation in electronic editing are viable, it is necessary to establish a set of requirements. Such a set of requirements is offered below. The first two are threshold requirements. The others can be met and exceeded in varying degrees and can therefore prove helpful in choosing among adequate procedures:

1. The procedure must be nondestructive of the original text.
2. The procedure must permit comments between editor and author.
3. The procedure must be efficient in both encoding and decoding modes (including ease of learning as well as efficiency of use by experienced personnel).
4. The procedure must permit the efficient preparation of a final text.
5. The procedure must not be inherently limited to implementation on very expensive or very specialized equipment.

Requirements 1 and 2 were discussed above; requirements 3, 4, and 5 will be discussed below.

Efficiency is the aggregate product of a great many features, many of which pertain only to specific text annotation procedures. Some of the most important and generally applicable components of efficiency are these: good ocular access between the original text and comments and/or editing symbols (also discussed above); the use of editing symbols rather than a pure comment system—pure comment systems may be adequate, but they do represent a significant loss of efficiency; the efficiency of the system of editing symbols that may be used.

After the editor has emended a text and the author and editor have agreed upon the emendations, a final, cleaned-up text must be prepared. In traditional editing, of course, the entire text was rekeyboarded, typically by a typesetter; in the age of electronic editing, this rekeyboarding is not acceptable. In some of the newly developed text annotation procedures, there is no alteration of the original text until after the final text has been agreed upon. In others, the editor incorporates some or all of the emendations into the text—though in some nondestructive way—before the author's review. Naturally, it is desirable to have a procedure in which the final text is created in the most efficient, most automated manner possible.

SHOULD THE TRADITIONAL EDITING SYMBOLS BE RETAINED?

The traditional editing symbols are highly efficient when used by experienced personnel and, in addition, are easily learned. They are easily learned because many of the symbols are intuitive and because the symbols can be learned and used in increments. Finally, they already constitute a de facto standard. Might it be desirable, then, to retain these symbols in electronic editing?

Unfortunately, the traditional symbols do not meet two of the requirements specified above for text annotation procedures in electronic editing. Because they were designed to be encoded by hand, these symbols can only be entered on computers or terminals with bit-mapped screens. Given systems with this capability, the most flexible and efficient method for entering the symbols is probably with a mouse (along the lines of the "pencil" tool in Apple Computer's MacPaint™). So these symbols require equipment that, if not necessarily expensive, is still relatively specialized. In addition, once the traditional symbols have been entered, there is no easy means of removing them from the text; consequently, preparing a final text becomes unduly difficult. Nevertheless, as will be shown below, it may prove desirable to retain keyboard-character equivalents to these symbols.

ANNOTATION PROCEDURES IMPLEMENTED ON ELECTRONIC PUBLISHING SYSTEMS

Not surprisingly, vendors of electronic publishing systems have devised procedures that at least meet the requirements presented above. Several representative procedures are described and assessed below.

Mentor Graphics offers electronic publications software for Apollo workstations. In this system the decoder, by clicking a mouse pointer, opens markers that become numbered symbols which are keyed to comments the encoder has placed in a special workspace at the top of the page. By clicking the numbered symbol, the decoder rolls down the comments. The ocular access provided in this system results in a level of efficiency of use that is only minimally adequate. Paul Needham, Mentor's Marketing Manager for Electronic Technical Publication, notes that this is "not an ideal system for editing" but that it works well for technical review and for editing in which the editor makes many silent emendations (personal communication, 5/26/85). He also notes that editing will probably be better supported by Mentor in the future.

Xyvision's electronic publishing system permits comments to be placed between lines in the text area. This method provides excellent ocular access. When no longer needed, the comments can be removed and the extra spacing collapses. In ViewTech's electronic publishing system, comments, which are removable, are introduced within the lines of text. This method also results in excellent ocular access. Dee Hester, an account manager for ViewTech, indicated that ViewTech chose to place comments within rather than between the lines of text as a means of conserving computing power (personal communication, 5/24/85).

As noted earlier, for greatest efficiency of use, annotation procedures should include both comments and editing marks. The systems described here are comment based, but the excellent correspondence between text and comment areas in the Xyvision and ViewTech systems will permit the use of some sort of editing symbols. For instance, a delete symbol, instead of a comment, could be placed directly above or alongside a particular word or phrase.

These procedures permit the preparation of a final text: presumably the editor will go back and keyboard in the emendations and remove the comment areas once the author has approved the editor's work. The manual aspect of this procedure, however, is not ideal and, in fact, is less than might be hoped for in the computer age. A possible means of facilitating the preparation of the final text in these procedures is for the editor to create a new text and to use comments and symbols that indicate how the original text has been emended. Except at the places where the author rejects the editor's emendations, the removal of the comment areas would yield a final text.

A truly innovative procedure for text annotation has very recently been developed independently by Penta Systems and Xerox. In this procedure, the editor works destructively and simply creates a new text. But while the editor works destructively, the system itself records the editor's insertions and deletions and enables the author (and editor) to view a special file in which the insertions are highlighted and the deletions are struck through. Here is a procedure for text annotation that is clearly more than a substitute for traditional hardcopy editing: it uses the resources of the computer to provide some distinctly new capabilities. Editors will presumably be more than willing to work destructively. Preparation of the final text is automatic. A question that should still be answered is whether decoding can be performed efficiently, especially in the case of heavily edited text, using a procedure that represents only insertions and deletions rather than the full range of operations represented by the traditional editing symbols. But this procedure, used in conjunction with a comment facility, may well prove very significant in the future of electronic editing.

In the Penta system, this procedure is known as the capability for "edit trace." Mark O'Connell, Penta's Coordinator for Marketing Services, reports that edit trace is working well in a demonstration project that is currently underway (personal communication, 5/25/85). Xerox's version is a separate software application known as "ShowEdit" and written in Xerox's dialect of the Lisp language. It was developed and is used internally by researchers at Xerox's Palo Alto Research Center (PARC). PARC researchers have also developed an excellent annotation facility (also written in Lisp) known as Annoland. Annoland permits an encoder to write comments and to place special markers at the appropriate junctures in the text. The decoder clicks the mouse pointer over a marker and a workspace appears with the encoder's comment.

According to PARC's Richard Burton, who has been centrally involved in both projects, ShowEdit will be included in the next release of Xerox's Lisp editor and will run on their 8000 and 1100 series workstations (personal communication, 5/24/85). Xerox, however, does not now have plans to release Annoland or to transport either ShowEdit or Annoland to their regular office and publications software.

It is evident, then, that a number of adequate and more than adequate procedures have been developed by vendors of electronic publishing systems. But the equipment—networked publications workstations—on which these procedures have for the most part been implemented is expensive and highly specialized. A great many professionals who edit and are edited do not use and will not be using this kind of equipment. Consequently, different procedures have come from other quarters.

ANNOTATION PROCEDURES FOR INEXPENSIVE AND NONSPECIALIZED SYSTEMS

Various individuals have developed text annotation procedures for use at their own jobsites on relatively unspecialized and inexpensive systems. Several of these procedures, moreover, do not require homogeneous equipment but can be used with any terminals or computers that can exchange regular (ASCII character) text. Consequently, these procedures--along with those like them—are for many the only available option over the near term. But some of these procedures may also prove significant in the future of electronic editing.

Jim Morgan uses a procedure that consists of comments enclosed by brackets located in the text [5]. It is, in fact, quite similar to the editing facility on the ViewTech system. Like some of the other comment-based procedures, this procedure could—and probably should—be enriched by a set of editing symbols that would be placed in the comment areas.

Randy Taylor, who edits for a group of city planners in the Salt Lake City Planning Department, has devised a simple but functional system for use on the eight terminals that run on the office's Convergent Systems minicomputer (personal communication, 6/23/85). He uses the text editor's strike-through mode to show deletions, its highlighting capability to show insertions, and all uppercase letters to convey his comments to the authors. Taylor's authors generally prepare the final text as they decode his emendations.

Kenneth M. Gordon, of the Lawrence Livermore National Laboratory, edits on a terminal and exchanges hardcopy versions with his authors [3]. But, as Gordon himself suggests, his general approach can be readily adapted for total electronic editing. Gordon makes minor emendations silently. He indicates more significant emendations not with editing marks but by placing both the original and revised passages next to one another in the text, so that the author enjoys good ocular access while comparing them. Gordon's authors cross out either their original or Gordon's revised version of the passage from their paper copies, and

Gordon then prepares the final text on his terminal. Gordon uses comments such as: "You said ' . . . ' You could say ' . . . '" to help alert the authors to these emendations. Often Gordon uses a typesetter to generate his hardcopy drafts, and in those cases, he also uses bold italics to help highlight his emendations.

Another procedure has been devised and used internally (swapping disks rather than through networked computers) by the author and his colleagues at the University of Washington. It consists of a reasonably intuitive and efficient set of editing symbols that are roughly equivalent to the traditional marks but which are generated by means of standard ASCII-keyboard characters. These symbols can be entered on any text editor that encompasses the standard ASCII character set and can be electronically transmitted between any computers or terminals that can exchange ASCII characters. This procedure provides for comments as well as symbols. Preparation of the final text must be performed manually, but the symbols have been designed to be "read" by a computer so that the final text could be prepared automatically. Testing of this procedure is continuing, and a description of the symbols and the operations they represent are available from the author upon request.

CONCLUSION: THE NEED FOR A STANDARD

It is certain that a great deal of editing, both formal and informal, will be performed electronically. No one knows what procedure or procedures for text annotation will be developed or accepted. But it is highly desirable to achieve agreement on a standard text annotation procedure or, at least, to prevent the proliferation of procedures.

For one thing, a standard would simplify the worklife of all those who edit or are edited, for without a standard these individuals might well have to learn new procedures and switch among procedures many times during a career.

For another thing, standardization of a text annotation procedure will help contribute to hardware and software compatability, both in regard to the text annotation function and to total compatability among systems. Ideally, various electronic publishing systems, microcomputers, and mainframe systems should all be able to work together with full functionality and with a common annotation procedure.

From a technological point of view, there appears to be little in the procedures described here, including those that have been implemented on electronic publishing systems, that could not be added to general-purpose text editors, particularly so if comment spaces are placed within lines of text rather than between lines or in special pop-up comment areas. All of these procedures, then, are long-term options for a standard that would extend from the publications department into every department of complex organizations.

But achieving a standard among a wide range of possible procedures will be no easy task. The universe of concerned parties whose needs must be considered is very wide, wider even than what has been suggested thus far in this paper. It extends, for instance, to an experimental project in Great Britain to develop a wholly electronic scholarly journal. For this project, a text annotation procedure has been devised to permit electronic refereeing of submitted manuscripts [4]. Using this procedure, which consists of a comment facility similar to those described above, manuscript reviewers perform what is, at least in part, an editing function and telecommunicate their work to the journal editor.

It is important, therefore, for information to be exchanged and research to be conducted on the needs of various professional communities, the adequacy and applicability of the procedures that are being developed, and the degree to which any procedure is emerging or might emerge as a standard. It is also important to work with a standards organization, such as ANSI, to help bring about a standard and the best possible standard. In this way, as in many others, professionals in communication can work together to take hold of their own future.

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PART III

COMMUNICATION AND MANAGEMENT

ETHICAL DECISION MAKING AS A MANAGEMENT IMPERATIVE FOR ORGANIZATIONAL COMMUNICATION

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ABSTRACT

This paper contends that the preeminent task of management is choice, and that this choice is often set in a context of an ethical dilemma; managers face ethical dilemmas routinely, and these dilemmas are not reducible to common methods of decision analysis. These dilemmas exist outside clearly defined systems of corporate ethics as distinct personal choices which are governed by systems of personal ethics. Therefore, ethics should become a management imperative.

INTRODUCTION

A manager at XYZ Corporation is faced with a decision. How should a senior employee, who no longer makes contributions to the organization which justify his continued maintenance in the organization, be treated? The worker is not disloyal but, perhaps, merely the victim of diminished capacity (e.g., heart attack, senility, etc.). The organization and stockholders would be better served by his dismissal. The individual's family and society would benefit from you "carrying" him the few remaining years until his retirement. Most importantly, and most complicating, is that the problem is not of the employee's own making.

This ethical dilemma represents a typical, but morally troubling, problem faced daily by managers. Neither law, company policy, nor well-established tradition provide a clue to how the situation should be made or communicated. Varied and conflicting responsibilities impinge on the manager's decision and communication processes. This is the typical, inevitable, unavoidable, ambiguous domain of the manager's task. It is neither easy, plain, nor pleasant. It is the quintessential meaning of being a manager. It is a moral choice, an ethical dilemma.

DECISION THEORY AND BUSINESS ETHICS

The study of decision making has progressed through the stages of economic analysis, bounded rationality, political and power processes, behavioral and psychological analysis. The most common approach to understanding decision theory, however, has been the "rational" approach--

the selection of a course of action from among many possible alternatives. The rational approach deals with the decision itself, or with the person(s) making the decision, or with an analysis of the decision process. Emphasis is typically placed on choosing the alternative which will generate the greatest economic gain for the organization and then communicating that decision to interested parties.

Lately, there has been an interest in the blending of decision styles and ethical considerations [21]. Some researchers have focused on improving ethics in business [8; 30]. Others have focused on teaching ethics to managers [4] and still others have researched manager's ethical beliefs and behavior [9; 10; 20]. Few have focused on ethics as a component of organizational communication. Most studies of communication ethics have attempted "to sensitize communicators and communicatees to the inherency of potential ethical issues in human communication transactions [18]." They have not explored the relevance of ethical questions in the organizational context.

Emphasis has been placed on classifying ethical theories. The major philosophical, ethical, and moral theories, for example, have been summarized as (1) utilitarian theories (which evaluate behavior in terms of its social consequences), (2) theories of right (which emphasize the entitlements of individuals), and (3) theories of justice (which focus on the distributional effects of actions or policies) [11].

For the purpose of this paper, "business ethics" is defined as "standards of action" for the business environment. It is an easy transition, then, to think of ethics as a special form of decision criteria. That is, the manager considers not only economic criteria but also the ethical requirements of the decision (e.g., honesty, undistorted facts, and truthfulness). For example, business cannot amorally pursue profits and disregard all social implications of the means of acquiring profits [27].

A "dilemma" occurs when there is a conflict between alternatives or among standards of action. For instance:

> When the issue of loyalty to company policy emerges . . . one may encounter a conflict between conformism and personal growth or integrity. When the goal of success beckons in terms of one's career, the question of promotion beyond one's level of real competence or ability to cope with anxiety and insecurity may surface. Within the realm of the ethical there is always the lure of false greatness, whether by sacrificing moral values in order to be viewed as a high achiever, or by consciously transgressing the customary bounds of ethics or law... [26].

Obviously, there is great opportunity for both ethical and unethical behaviors at all levels of organizations--from the top down. That is, opportunities abound which create ethical dilemmas. And there apparently are a large number of people who cannot state with certainty what is definitely right or wrong. Thus, the question is often one of what should be done in a particular situation. Logic would suggest that persons who practice or condone "small" unethical practices have a tendency later to attempt more serious unethical activities.

THE RELEVANCE OF ETHICAL DILEMMAS

The relevance of ethical dilemmas to organizational communication is that they pose a different challenge from those of other managerial problems. For most ethical problems there is little guidance for treating the dilemma. Five categories of ethical problems are (1) coercion and control, (2) conflict of interest, (3) physical environment, (4) paternalism, and (5) personal integrity [6; 7]. Much of management problem solving consists of conducting rational analysis to reduce discrepancy or to condense the number of alternatives. But since ethical dilemmas such as the five mentioned above do not always lend themselves to rational operation, they are not solvable in the same sense as are many other organizational problems.

It is not surprising that there is little agreement on the nature of ethical actions, on approaches to choosing among actions that have ethical overtones, or on communicating an ethical decision. For example, a recent study of advertising and marketing executives suggests little agreement on standards for ethical business communication, but establishes consensus concerning the ethical value of specific acts and management's responsibility to control such acts [23]. A follow-up study two years later reveals that behaviors which mislead, take advantage of, or potentially harm others, are generally seen as unethical [22]. The ratings are not unanimous, however, concerning any behavior. Great disagreement is noted concerning such activities as releasing truthful but negative information, reworking reports, offering cash incentives, and checking up on sick employees.

Apparently there exist dilemmas in management decision-making practices which are unsolvable by resorting to generally accepted criteria. None of the practices are necessarily illegal. The normal rational process used in arriving at certain decisions regarding behavior is neither black nor white. These decisions exist within gray parameters. Any choice of behavior could be considered appropriate.

A NEED FOR RESEARCH IN ETHICAL DECISION MAKING

It is interesting to note that the majority of research into business decision making has ignored ethical dilemmas of organizational communication and the implications of ethical frameworks for decision analysis. Instead they have attempted to:

1. provide information and insights concerning a variety of potential perspectives for making ethical judgments about human communication

2. highlight the complexities and difficulties involved in making evaluations of communication ethics

3. encourage individuals to consider and develop their own personally workable approach to assessing the ethics of human communication

4. aid individuals in becoming more discerning evaluators of communication through enhancing the ability to make specifically focused and carefully considered ethical judgments [18].

One attempt has suggested the need to use twelve questions when examining the ethics of a business decision. The intent of these questions is to force management to consider issues of social harm at the outset, as a type of ethical audit, rather than after the fact, when liability suits are filed [27]. Another approach is a three-stage decision model which provides managers with a (somewhat abstract but) systematic approach to ethical decisions. This approach suggests that a manager should (1) develop an understanding of general ethical principles, (2) derive "applied or middle ethical principles," and (3) practice the principles in the business environment [31].

A third framework for incorporating ethics into the decision-making process suggests that all business decisions take place within the context of society and are, therefore, social acts. In this light, all decisions are moral decisions based on the concept of values and their consequences. This approach suggests that unconscious and intuitive decision making is inadequate, that a critical methodology is needed [14].

A fourth attempt to integrate ethics into decision analysis concerns appropriate/inappropriate guidelines for decision makers when they face a moral choice. This empirical study suggests a decision maker should:

1. act in ways (1) that are consistent with organizational goals and (2) that others would act if they were in a similar situation, and

2. reject those ethical platforms (1) which further self-interests and (2) which appeal to transcendent beings or forces [21].

If "business ethics" is indeed standards of managerial behavior, as we previously defined the term, then ethics is a factor in corporate decisions. Unfortunately, a systematic review of how ethics fits into the decision-making literature is long overdue. Researchers may have been too concerned with decision making as an activity, when they should have been concerned with the ethical dilemmas present in the decision-making and communicating processes.

AN APPROACH TO UNDERSTANDING ETHICAL DECISION MAKING

The decision making phenomemon readily lends itself to analysis by means of an input-organism-output model. In order to focus on the ethical dimension of decision making, the following model incorporates representative elements directly related to value judgments.

FIGURE 1

DECISION MAKING PROCESS

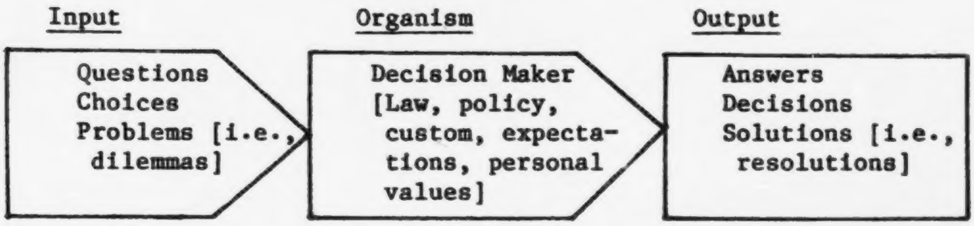

Input
Organism
Output
Questions
Choices
Problems [i.e., dilemmas]
Decision Maker
[Law, policy, custom, expectations, personal values]
Answers
Decisions
Solutions [i.e., resolutions]

Figure 1 suggests that management is the organismic variable in the decision-making process and that decisions emerging from the process are a function of the nature of the organism and how it interacts with the problems brought to it. It further suggests that the manager is continually faced with situations calling for choice and that communicating one alternative is the nature of management. By definition, that decision calls for a conclusion or a judgment, and in the case of a business manager, choice will likely take into consideration the law, corporate policy, role expectations, etc. However, any judgment will require some degree of subjective assessment and will lean almost exclusively on the personal value system of the individual making the choice.

Furthermore, the determination of what that choice will be, involves an evaluation of the extent to which alternatives measure up to selected criteria. By their very nature, these criteria possess ethical dimensions and will define the manager's ethical orientation. Figure 2 depicts and expands the "organism" stage of the model presented in Figure 1, especially as it relates to personal values, and describes the relationship among the major evaluative criteria.

FIGURE 2

EVALUATIVE CRITERIA FOR BUSINESS DECISION MAKING

1. P(hysical)	P = that which is technically possible
2. E(conomic)	E = that which is fiscally sound
3. S(ocial)	S = that behavior in which we ought to engage

The first, or most basic consideration, in any decision is determining whether a particular alternative is subject to accomplishment. Will physical limitations of the environment or technological ability permit it? If not, questions of economic feasibility and social worth are mute points.

Second, even if it is conceivable, are we the ones to do it? Would it make economic sense in our case? Too often good ideas are eagerly adopted and communicated despite the fact that we may be an unqualified parent. Perhaps our type and degree of expertise do not represent a good "fit" with the opportunity. However, these first two points stop short of a decision if we have any sense of social obligation.

Therefore, third, there remains the question of "What ought we to do given the social context of our decision?" That is, what is the socially correct choice, the one that will serve the best interests of society? And, given the conflicting interest of different requests of society, to whom do we owe greatest allegiance in the activity of choice? We are given some guidance by law and corporate policy, but of course, these are merely codified ethics upon which we have achieved prior consensus. Customs and role expectations may or may not be relevant under existing circumstances. And so we find ourselves invariably relating the decision in some measure to our personal value system.

The P-E-S acronym for these criteria in Figure 2 coincidentally form the word "pes" which means "the foot, or footlike part" and, hence, "foundational." It is foundational that these criteria with these ethical aspects present an integral, inextricable dimension of choice to be communicated.

SUGGESTIONS FOR ETHICAL DECISION MAKING

While the question of how ethics affects business decisions may be a highly personal matter, this does not mean that there are no guidelines for focusing on this aspect of the choice process. Following are seven suggestions for managerial orientation towards ethical choice in business.

The first recommended approach to understanding ethical decision making is to realize that the essence of management is choosing--choosing among priorities, schedules, images, prospects, personnel, locations, prices, media, etc. These decisions involve ethical choices. The decision maker's choice is, of course, limited by physical, technological, economic, and human factors [31]. From the viewpoint of the decision maker, choice is present to the extent that the action taken by the decision maker to solve a problem makes a difference in the value of the outcome of the decision [1].

In this regard, there are three preconditions of decision problems: a gap, a motivation to close the gap, and the abilities and resources to resolve the gap [25]. Decisions also imply goals; and one of the goals of many decision makers is to choose the one best answer, or at least a possible course of action that "satisfices [12]. However, since ideal conditions are seldom present, the manager can seldom make the "best" decision, especially regarding ethical dilemmas. Furthermore, it seems presumptuous to routinely assume "one best way" exists in view of the notion of equifinality [19]. If a system can reach the same final state from differing initial conditions and by a variety of paths, then it would appear equivocal to also suggest that one of two or more equivalent routes is superior.

A second guide to understanding how ethics serves as a factor in corporate decisions is, as Aram suggested, to develop an orientation toward action [3]. Litchfield proposes the administrative process as a "cycle of action" initiated by decision [24]. Green and Redmond object to his use of the term "cycle," but they have no quarrel with describing administration as action-oriented [16]. Thus, one way to resolve ethical dilemmas is to be aware of the poles of a dilemma and to regard them as choices open to the manager. See Figure 3.

For example, managers who are unaware (U) of ethics as a factor in corporate decisions see a situation of opposing forces (i.e., ethical dilemmas) where the pressure of positive (+) and negative (-) consequences is brought to bear oppressively on them. In this situation, the manager responds as a victim of situational variables. The resulting decision is determined by the relative magnitude of the various perceived effects.

Action-oriented managers who are aware (A) of ethics as a factor in corporate decisions view the possibility of action in many directions and hold open the potential for action. See Figure 4. In this situation, the manager has a capacity to experience opposites. Therefore, he or she is less the center of centripetal forces and is more the center of centrifugal forces. The stance is one of "interested impartiality" or "neutrality" (e.g., ready for action, fully experiencing the alternatives, but uncommitted as yet to a position). This condition may be described as "creative precommitment [3]," a position of flexibility, not rigidity. It is an orientation to choice in an ethical dilemma that requires withholding judgment in advance of the specific instance, given no legal or moral sanctions [28]. This stance permits the realization of multiple criteria in administration and, although it does not prescribe the outcome of choice, guides the process of choice. Consequently, the guide for practicing managers is not how to act in an ethical dilemma, but how to orient themselves to the problem of choosing among ethical alternatives and then communicating that choice.

A third way to treat ethics as a factor in corporate decisions is to apply Barnard's "invention of concrete solutions [5]." Barnard saw a need for managers to grapple with conflicts of interest and obligations at the various levels of executive resonsibility. Of special interest here is Barnard's insight into how the experience of a dilemma may create the drive to discover or invent another approach that does not contain the same difficult qualities [3]. In this process, the nature of the ethical dilemma leads the manager to create an alternative to existing choices. This ability to discover a way out is what Barnard terms the "invention of concrete solutions." On occasions, however, an immediate choice may still be imperative. Therefore, another manifestation of a concrete solution could be the taking of actions that prevent a specific ethical dilemma from recurring. This type of orientation challenges the manager to be an innovator.

FIGURE 3

MODEL OF A MANAGER ORIENTED TO EXTERNAL CONTROL

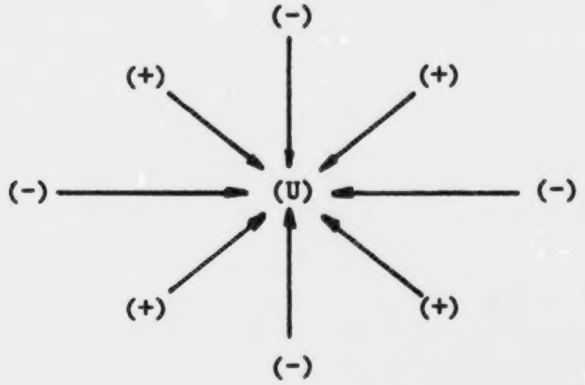
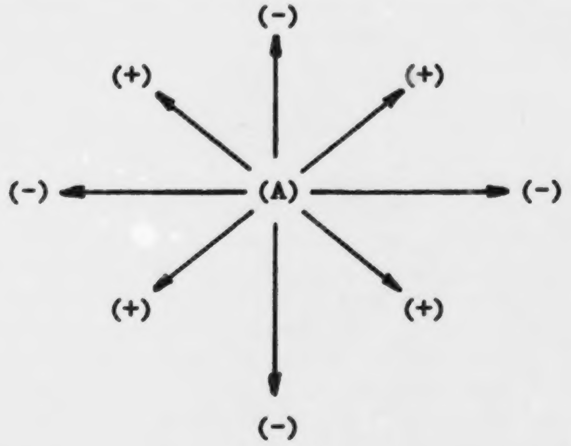


FIGURE 4

MODEL OF A MANAGER ORIENTED TO INTERNAL CONTROL



A fourth approach is to develop a perspective touching the philosophical dimensions of management. For example, Aram suggests that a choice is an important question in various life philosophies and it would be negligent to treat ethical dilemmas as entirely practical matters [3]. Therefore, it may be useful to place management in the broader context of the larger human scheme, since there are no ends or purposes in organizations in and of themselves; rather, they are the instruments of human design. For example, the activity of "decision making" (when faced with an ethical dilemma) characterizes what it means to be a manager qua manager. While the process theorists point out that managers also plan, organize, direct, and control, the element of deciding what to plan for and how to organize, direct, and control is actually the functional focus.

A fifth approach is to build a strong value system. The question about ethical dilemmas is not so much how to decide, but rather what values are manifest by the choice. Flowers and Hughes suggest that all workers exist at different levels of psychological development and that these levels are expressed in the values they hold about work [15]. For example, most managers say they manage through the lower value levels of conformity and manipulation. The dilemma for these managers is that most employees say they (i.e., employees) are happiest when they work at the higher value levels which are sociocentric and existential.

A sixth approach to understanding how ethics figures as a factor in corporate decisions is to mandate ethics from the top down. That is, all managers from the CEO on down commit themselves to the pursuit of ethics. Examples speak much more forcefully than words, and no approach unsupported from the top can long endure [32]. In addition, top management must encourage lower levels of management to share upward ethical decisions. If not, the issue will not be resolved. For example, if management must choose between shrinking profits and ethical considerations, their choices are unethically constrained if they feel they are held accountable only for profits [6].

A final approach is to consider the activity of "coping with ethical dilemma" rather than that of "coping with decision making." Managers cannot avoid confronting equally adverse alternatives; in fact, that is their role. They face equally attractive or unattractive alternatives without a way of rationally calculating the "better" choice. Even after a decision has been made and the situation has passed, there is often no way for a person to know conclusively if the actual choice was "correct" (given the absence of legal constraints or a higher moral calling). The ambiguity of a dilemma remains even after an action has been taken.

While organizations are legal entities and action is conducted in the name of the whole, organizations are still abstractions; there is no organizational mind in the absolute sense. However, managers do hold and act on organizational criteria, they do take actions that represent the interest of the organization, and they do communicate their decisions. The manager is positioned in a role requiring representation of the organizational intellect, disposition, and morals. People act "as though" institutions are real [2]. Consequently, an ethical dilemma is not a conflict between organizations and individuals; rather, it is a conflict that resides within the thoughts, perceptions, and values of individuals. A manager must, therefore, acknowledge the absence of optimal solutions in many cases and see the existence of trade-offs among alternatives.

CONCLUSION

Dwelling on the decision process provides a keyhole means of considering the entire organization and structural hook on which to hang a management and organizational communication philosophy concerning ethical decision making. The result is that decision theory becomes a view broad enough to cover the field of management and organizational communication in a sense as fully as anyone might conceive of it.

The presumption is that the tension of individuals and organizational requirements will never be resolved finally or optimally. However, to say that ethical dilemmas are unsolvable does not say there are no guidelines to assist managers in coping with ethical dilemmas. Although the inherent nature of an ethical dilemma prevents a "solution" in the conventional sense, guidance can be given by top management, and should, we think, become a management imperative for organizational communication.

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USING AN INTERVIEW-BASED APPROACH TO DIAGNOSING FUNCTIONAL ORGANIZATION PROBLEMS

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ABSTRACT

This paper deals with the authors' practical, interview-based approach to diagnosing organizational problems, identifying dysfunctional behaviors, and making specific recommendations for change. They rely heavily upon research and authoritative commentary which they interpret as supporting the validity of the communication-audit viewpoint regarding organizational problem diagnosis, an approach which they have found to be particularly valuable in their work. In general, their's is a description of consulting work, with reference to literary and research sources in support of their particular orientation, which includes elements of the communication-audit methodology. They attempt to show that the approach has usefulness in pin-pointing specific individual dysfunctional communication behaviors. They also conclude that the time, effort, and monetary costs are well worth the expenditure, when the process results in making professionally-motivated managers aware of ways in which they could improve their performance.

ADMINISTRATIVE PROBLEMS IN THE FIELD

In the organizational development climate emerging in today's corporate environment, there is increased emphasis on identifying problems with some specificity, and making recommendations for change on the basis of the most precise information available. All sorts of organizations -- educational, medical, religious, public administration, and commercial -- are seeking assistance in diagnosing their problems with a view toward recommending solutions which are as clearly relevant as possible. Consider the following situations:

False Emission Test Data Reported by a Major Auto Firm

One of the "big-three" domestic auto manufacturers was heavily fined by the Environmental Protection Agency in Washington for having mis-reported emission control system test data. No accusation of intentional deception was laid. Nevertheless, it was clear that the organizational communication process had malfunctioned. False data had indeed been permitted to pass through the organization and be released to the EPA authorities. One of the authors of this paper was called in by the troubled firm, as part of an investigative team, to attempt to discover what had actually happened and why, whether conditions prevailed under which a similar occurence might take place, and, if so, to make recommendations for reducing the probability of future similar recurrences.

Administrative Problems Trouble a Suburban "School System"

A midwestern state's fastest-growing suburban school system was experiencing what were loosely-defined as "administrative" problems. There were, on the surface at least, apparent conflicts between the local school board and school administrators, and, in turn, between some of the top school administrators and particular school principals and their associates in the system. Again, an investigative team was invited to take a systematic look at the situation. What, actually, was taking place? What were the specific behaviors which were causing these disruptive conflicts? Where were these behaviors specifically located within the organizational structure? What could be done to change these behaviors, to establish an overall more exemplary performance?

Open Conflict Disrupts a City Administration

The citizenry of a strategically-located small city in a major industrial area had witnessed a prolonged agitation between the municipality's elected officials and its professional staff. The local media frequently satirized the conflicts which surfaced in public city council meetings, and invited their news audiences to stay tuned for further episodes. The authors as a team were approached by the city's council members to investigate the situation. What was actually taking place to so severely interfere with the city's administrative functioning? What behavior, or behaviors, served to induce these costly eruptions? Could some approach be found to positive fact-finding, with specific identification of troublesome situations, along with a prescription for some active program that would show promise of restoring the public integrity of both the city's elected and professional staff?

AN APPROACH TO ADMINISTRATIVE PROBLEMS

Through their collective experience -- academic and practical/field -- the authors have developed an approach to the kind of situations which have been sketched in the preceding paragraphs. Based on the concept that organizational administrative problems are frequently, if not usually, traceable to communication difficulties, and drawing heavily upon precedent-setting procedures developed by a number of communication specialists, they have developed a process for diagnosing such problems, and assisting in devising approaches to change. Integral to the procedure is the assumption that specific behaviors of particular individuals within the structure of a complex organization can be identified, thus making plausible such recommendations for individual, as well as organizational, change and development as may be forthcoming. Thus, this approach is not one which results in a generalized morale survey report. Rather, it is an intensely-practical diagnostic procedure which, through a process that relies heavily upon a system of structured interviews, produces a chapter-and-verse picture of the organization-in-motion, highlighting specific behaviors of specific individuals, thus calling attention to the opportunity for self-managed change.

The procedure, thus far developed, involves mapping the current information flow of a functioning organization, producing a functional portrait of what the actual day-to-day operational reporting lines really are, thus permitting those concerned to literally "see" how the the situation may differ from the idealized chart on the wall.

A structured-interview process, with trained communication professionals in charge of the face-to-face procedure, allows specific behaviors (including attitudes related to communication responsibilities) to be identified. Supporting descriptive data, thus generated, provide a basis for outlining both general and specific dysfunctional practices, with some confidence that that which is reported is reality. Divisions, departments, levels, offices, and single individuals can be highlighted, together with supporting "evidence".

Through a carefully-administered feedback process, again with trained professionals in charge of a largely face-to-face procedure that seeks to preserve the confidentiality and professional dignity of all persons involved, there is provided a means for administrators to see themselves as others see them, and to subsequently have some opportunity to self-prescribe for behavior change, in consultation with an expert in the area of administrative communication.

RATIONALE FOR CONCENTRATING ON COMMUNICATION

Students of management recognize that there are any number of approaches to the systematic analysis of management-in-process. And there are those who are trained to explore the various parts of a whole management system. But everyone comes to the situation with his or her own special preparation and commitments. The authors in this instance have social-psychology interests, with one of them committed to the study of human communication in business.

Also, on balance, there appears to be a great deal of literature available in support of the importance of communication to successful institutional administration, business or otherwise. One of the earliest systematic students of productive organizations was Barnard who recognized that

> in any exhaustive theory of organization, communication would occupy a central place, because the structure, extensiveness, and scope of organizations are almost entirely determined by communication techniques. [1, p. 8]

In turn, Katz and Kahn have noted that "communication is . . . a social process of broadest relevance to the functional group, organization, or society [11, p. 224]." Simon has stated it most directly:

> The question to be asked of any administrative process is: How does it influence the decisions of the individual? Without communication, the answer must always be: It doesn't influence them at all [16, p. 109].

Recently, Trewatha and Newport have commented on the importance of communication to organizational success as follows: "It [communication] is required for the effective coordination of group activities, an implementation of the leadership process, and the performance of all management functions [19, 463].

Even more recently, Peters and Waterman have commented on the characteristics of high performance organizations in their best-seller, In Search of Excellence. In it they report on the high performance companies' "rich ways of communicating," stating that "the nature and uses of communication in the excellent companies are remarkably different from those of their nonexcellent peers." The HP companies "cultivate the right people getting into contact with each other;" "the intensity of communication is unmistakable;" great effort is made to remove barriers to communication, even physical ones; and it all adds up to "lots of communication [15, pp. 121-122]."

Kanter, in her developing classic, The Change Masters, describes the innovative corporation with the same enthusiasm that Peters and Waterman show in discussing the HP company. Similarly, she is also caught up with the importance of communication variables. In successful corporate climates, she says, there are five important elements to be "managed by the executive team." All five are communication related, and three of them involve both communication behavior and/or organizational communication structure. She says that successful management teams in innovative organizations (those organizations that will have the best chance for future survival) must work on the improvement of lateral communication, creating "cross-functional links, and perhaps even overlaps." They must work on the reduction of unnecessary layers of hierarchy, concentrating on the elimination of "barriers to resource [information] access," making it possible for people to go "directly after what they need" by way of information, helping them to have "quick intelligence about internal and external affairs." Along with these two, a third of Kanter's communication prerequisites for innovative organizations is increased -- and earlier -- information about company plans. There must be "reduced secretiveness," avoidance of surprises, with a more wide-spread sense of security achieved by "making future plans known in advance, making it possible, in turn, for those below to make their plans [10, pp. 361-362]."

Whether or not it can be ultimately concluded that a study of the communication elements inherent within an organization is entirely pertinent to its potential improvement, it is certainly clear from the available literature that the process of communication is considered by many to be vital to institutional success. To that extent the rationale for taking a communications approach to the analysis of an organization's functional problems is substantial.

Further rationale for isolating communication for study, so far as the authors are concerned, is the apparent fact that, among persons encountered in field studies, the term is typically non-threatening as a topic for discussion. It is a topic most persons have an opinion about, and will "open up" on. Furthermore, communication does not yet appear to carry any significant emotional charge; people are not reluctant to discuss it, as such. Everyone claims to recognize the importance of communication; and every administrator must do it -- it is the one certain "universal" among all members of any administrative unit.

Finally, it must be kept in mind that the request for assistance in systematically analyzing organizations is in terms of the total organization. Sponsors of such studies wish to learn as much as possible about their organizations in an efficient, least-cost manner. In general, it is the authors' belief that if any one element in the management mix were to be isolated for intensive study, there would no doubt be light shed on all other elements. However, for a variety of reasons, some no doubt subjective, there is the strong conviction that no single study can be more broadly illuminating than a study of the communication function. Through the prism of communication the broadest spectrum of the organization's behavior is most clearly revealed.

CONSIDERATIONS IN STUDY DESIGN

A Criticism of Non-Individual Approaches

A variety of communication-related methods can be used to study a functioning firm. There are, for example, system studies represented by the approach developed by Likert, designed to discern whether the administrative communication structure is, in practice, "open" (with an apparent sense of free-flowing communication), or "closed" (with a feeling that there is minimal communication). An open system is deemed more efficacious than a closed system; and, when the system is judged to be "closed," certain procedures may be recommended for making the system become more "open [13]." Certainly, this approach has its merits in the minds of many. General Motors, for example, has made, over a significantly-long time period, vast commitments of time, energy, and money resources to the ISR approach (from the Institute for Social Research located at the University of Michigan with which Likert had a long-time leadership role). Kanter makes a point of stressing GM's investment in the Likert approach, labeling it "substantial," and reporting that interactions associated with the ISR's work have led to significant and lasting organizational developments. She sums up:

> It is clear that General Motors felt the substantial investment in ISR and support of the program through both salary and out-of-pocket expenses was eminently worthwhile; the gains to GM involved substantial amounts [10, p. 333].

Other companies known to the authors of this paper have made use of the Likert/ISR methodology, and have invested similarly heavy amounts in ISR-based efforts. This is evidence in support of the approach's apparent value. In addition, this technique has a certain convenience of application, since the administration of the process is largely through pencil-and-paper survey instruments. Also, in an extremely large organization, where information about divisions, departments, and work teams, along with levels and locations, as groups, may have comparative implications, this approach certainly has great worth.

The negative aspect of the Likert/ISR approach, as seen here, is basically that it does not necessarily isolate linkages within the organization where communication difficulties may be particularly disruptive. It follows, then, that the opportunity for immediate, specific location of particular behavioral problems is not present. The concentration of energy and attention at the particular point, or points, where it may be most needed may not be possible. Again, in exceedingly large organizations, where the sponsors of the study may wish to maintain a corporate-wide perspective (without homing in on particular individuals), with an emphasis on observing the total structure's development through time, as overall administrative (communication) improvement efforts are made, this overview approach may be desirable.

The bias of the present authors is toward the identification of trouble spots, in addition to achieving some measure of the general communication environment. We do not wholly agree with the idea that most of the difficulties experienced by unproductive organizations are attributable to their management systems, rather than to personal inadequacies in their managers and employees. The Likert/ISR technique does not highlight individuals; it invites evaluation of the total location. In fact, it could be said that the approach results in a report on what the individual thinks of the organization. It does not tell what the organization thinks of the individual. (The only aspect of this technique that promises a narrower, rather than a broader, focus has to do with asking respondents to think about another unit similar to their own, and express some judgment about how that other unit might compare, on the scaler instrument provided, with their own.) Again, the process is both hypothetical, and quite non-specific, in terms of the individual who might need immediate attention.

Support for the Individual Interview Approach

In the work of the authors, three influences have served to draw attention to the merits of a specific-individual-interview approach to the diagnosis of organizational problems. The first of these reflects the prior-work experiences of the authors. Both came most immediately into their professional academic and consulting work from private industry, in both instances, large, complex organization. In such environments, the practical observation is continuously made, rightly or wrongly, that administrative problems are usually due to individual executive dysfunction. Persons are frequently demoted, retired, lateralled, reassigned, or replaced in some way, when things go wrong. By developing standards of the day, this traditionally reactionary approach may be deplorable (as the authors agree that it is), but, once one has experienced this environment, the tendency to make the individual the objective prevails.

A second influence which moves the authors to concentrate on the individual is the simple fact that most of their requests for studies have, thus far, come couched in terms of some power-group's "demand" that "the trouble" be located and corrected. The school board, the city council, a top management group, feels a sense of extremis and seeks to quickly identify and eliminate the cause. They want assurances that the particular persons who are responsible for the dysfunction are located, and the situation corrected. Certainly there is no brief to be made here for the layman's simplistic idea that a quick-fix is magically available. Nor is support offered for the strictly non-professional mission of developing a bill of particulars against an individual, or perhaps several individuals, who can then be summarily disciplined in some way, thus reassuring those in charge that they have done their duty, no matter how distasteful. In practice, the authors refuse, under all circumstances, to participate in such witch hunts, no matter the contractual circumlocutions available; in point of fact, seeking to refocus attention on the more positive goal of total organizational development. However, study sponsors still seek assurances that no individual who may be the cause, real or imagined, of problems in the system will go unidentified.

Third among the reasons for concentrating on individuals is a conviction that the authors have regarding the significance of persons. Both are unabashedly pro-person, and wish to see the emergence of more self-actualized individuals as the main end-result of whatever the research process made use of. More realistically, there is the conviction that individual persons are key, and that executive development is the name of the game in all organizational development processes.

With the individual -- as person -- in mind, the personal interview becomes paramount. It is the individual, functioning person who can best tell us what is actually going on. If we want to know what is taking place within one individual's organizational experience, he should be asked. If we want to know what is going on between persons in their everyday communication interaction, then questions must be asked of those involved. Goldhaber, and others, are correct when they indicate that much can be gained by exploring the various linkages in a large, complex organization [6, p. 165 ff.].

"Who says what to whom with what effect" makes a good communication guide in organizations, even as it serves as a modular guide for thinking about communication theory. And even though it may be true that, as has been indicated, there are other accepted approaches to analyzing organizational communication, Goldhaber is also accurate in his assertion that real analysis of interactive communication may not be so accurately done without a carefully-conducted individual process of asking and interpreting [6, p. 165]. This is taken here to stand for a kind of interview process.

The Elements of Interviews

Quite simply,interviews are, as Stone phrases it, and as practiced by the authors, "meetings in which the interviewer directs questions to the interviewee and records the responses [18, p. 67]." Furthermore, the type of interview recommended here is the structured interview, again according to Stone, refering to the utilization of a set of interview items that are related to the "research strategy" -- an "interview schedule" -- which has been devised for the situation at hand [18, p. 67]. In the ICA (International Communication Association) communication audit procedure so meticulously set forth under Goldhaber's direction, two interview steps are used: one that is designed to provide exploratory information, using open-ended questions; and a "follow-up guide", tailored to the organization, and designed to collect information related to communication issues raised in the exploratory interviews and by other means. Such interviews last about one to one-and-one-half hours, are conducted in confidence, and may be tape recorded [5, p. 46].

A similar pattern is followed in the authors' studies, except for what is perceived to be a lesser emphasis on preliminary interviews, and a greater emphasis on structuring the interview schedule (the term preferred here) to illicit information relating to key communication behaviors generally related to productive management. There is a commitment on the part of the present researchers to what constitutes normatively desirable communication behavior, and the interview schedule is largely structured to discover variations around those norms. (An extensive discussion of a typical interview schedule employed in a particular situation will be the subject of a subsequent proposed paper.) The interviews are conducted in strictest confidence; each one does take about one-and-one-half hours to conduct; but the use of the tape-recorder has been found to be a disruptive element in the authors' experience, and hence not employed.

An important point to make here, in sum, is that the interview process is structured. After a preliminary round of discussions with the sponsoring agents, and with selected members of the group to be more-carefully analyzed, there is some conceptualization of what the communication problems might be within a particular organization. Many of the items structured into the interview schedule itself will, of course, be designed to verify the existence or non-existence of these problems, their manifest nature, and their extent. Along with these items, the interview schedule will also contain items designed by the researchers to probe for information regarding other significant aspects of the communication situation at hand. So there is design, system, and comprehensiveness possible in a structured interview, following an interview schedule used with all persons involved.

Support for the Interview Technique

One of the advantages of making use of the interview technique is that an interviewee's response may be assessed on-the-spot, at least to some extent. The interviewer may probe the interviewee on questions where such probing appears promising. In addition, Stone points out, the interviewer can observe and record details about the behavior (nervousness, hesitation in responding, and so forth) of the interviewee in responding to items in the interview schedule [17, p. 68]. Also, the interview is a flexible process, in that the interviewer can often clarify questions in the interview schedule that the interviewee may not fully understand.

Herman and Korenich, in their discussion of gestalt approaches to organizational consultation, also point out two additional possible options which the personal interview process provides. One of these has to do with the aforementioned possibility of picking up on emotional responses to the interview and building on that to probe for information. The interviewer might observe, "You're feeling angry here. Do you have an incident in mind? What happens that makes you angry?" [9, p. 208] Also, Herman and Korenich point out that the personal interview can present the opportunity for making responses specific with regard to individual behaviors. It is all well and good that the interviewee may report, "we have a personnel problem at the department manager level." It is even more useful to hear that "Joe Doaks, the department manager, isn't doing the job well enough to suit me because he seldom meets his schedule [9, p. 20]." As Goldhaber and his ICA associates point out, one of the advantages to their approach, which relies heavily on the interview, is that information can be gathered about actual behaviors [5, p. 42]. And, even though one would have to agree with the observations of Goldhaber and Krivonos, as well as those of Golembiewski and Hillis, that there is a built-in reticence on the part of interviewees to name names [5, p. 53; 7, p. 92], the authors have devised an approach which makes specific identities likely. If the interviewer has located the interviewee on the organization chart, prior to the interview, and carefully reviewed the position description provided, it can usually be determined in which direction the problem behavior is coming from. Furthermore, candor is a function of security, and security is a function of competence in organizational life; and to the extent that the management team qualifies in the latter, they may reveal their feelings in specific, personal terms. Finally, the researcher plays a key role here, in communicating personal interest, offered on the strictest professional, confidential basis. If that can be established, candor will tend to follow.

One final point to make here is that the typical interview subject is an individual who is used to a free-form situation; who is used to dealing on a face-to-face basis with prepared professionals; who cherishes the opportunity for self-expression, who might quite thoroughly grasp both the intent and method of the research project, and even go a step beyond immediate responses and make useful suggestions for enhancement of the project. (As a matter of fact, this contingency is provided for in the interview schedule usually employed by the authors in their field work.)

Problems with the Interview Technique

In addition to the possible problem of the interviewee's reluctance to be totally forthcoming, alluded to above, several problems with the interview technique relate to the interviewer. Stone points out that the interviewer may react negatively, or at least differently, in the presence of a particular interviewee; the interviewer may change his question approach from person to person (although a well-rehearsed interview schedule may help to control for this); also, characteristics of the interviewer, sex, race, age, perceived status, may have a negative influence on the interview process [18, p. 68-69]. There is also the danger that the interviewer will take for granted the idea that all those being interviewed are of the same personality. Actually, very special needs, and even momentarily-shifting moods and energy levels, may tend to skew interviewee responses. There is, also, the danger of catching a person on an "off-day." Again, response may reflect personal anxiety or even neuroses. The person who reports receiving inadequate feedback, may really be merely stating that there is never enough feedback for him/her. Also, persons may have viewed only part of a whole communication sequence, and not know the background of an event which would have caused them to perceive it differently.

One further consideration could be noted. Pointing out how important it is for the interviewer to "talk plain", not B.S. (Behavioral Science), gestaltists Herman and Korenich, go on to say that there may be a temptation for the interviewee -- especially in the presence of an "academic type" -- to couch things in a more-than-usual aura of professionalism, to alter one's language, and to not share gut level reactions [9, p. 212; p. 199].

There are, of course, various means which may be used to control for most of these interview problems. In sum, however, they have to do with careful selection and training of the interviewers. They must have a commitment to the procedure, and be motivated to adhere to the interview schedule with enough energy input to stay alert to what may be needed by the interviewee, as the hour-and-one-half go by.

THE INTERVIEW SCHEDULE

Basic to the entire process is the design of the interview schedule itself. In general, it is a matter of having in mind a comprehensive list of items which relate to effective organizational communication. As mentioned earlier, Goldhaber's ICA approach involves at least a two-step design procedure for an interview schedule: first, asking enough questions of the organization's members to find out about their communication concerns; and second, designing those concerns into the questions that make up the interview schedule [5].

The Interview Schedule in Context

Basic to the design of the interview schedule is the assumption that it will be used within the context of a complex, functioning organization. It will be used to study the behavior of individuals; it will also be used to study the linkages which exist between the individual and other individuals. As Goldhaber and his associates point out, what is too often missing in communication studies is how the person fits into the communication system in terms of his or her communication patterns. The person must be examined, along with the linkages he/she maintains with all other relevant persons. This pattern of communication, including the essential linkages, can then be viewed as a total role function [6, p. 164].

It is vital for the interviewer, as well as the researchers, to have this total pattern of linkages in mind as the interview is being conducted. When superiors, coordinates, or subordinates, are referred to, by whatever terms, the interviewer must have some picture in view of who these other persons are, and where they are located. For clearly understanding responses, and designing on-the-spot follow-up probes, this knowledge is essential. Furthermore, it is necessary to have an accurate conceptualization of how the various relationships actually stand, in everyday practice. If persons speak of relationships, or linkages, it is important to know the likelihood of their speaking in terms of the idealized chart-on-the-wall, or the actual functioning network.

The sponsoring unit's official organization chart and what is actually taking place may not match. With this fact in mind, the authors have employed a more-or-less informal technique for finding out where the lines of communication are actually going, as compared with the officially-announced lines. In "casual" conversation, or within the context of phone calls to set up interview appointments, the prospective interviewee is asked to remind the calling interviewer as to which persons he/she frequently interacts with on a day-to-day basis to accomplish the assigned responsibilities.

This information is quickly collected from the interviewers, and a chart is drawn of the organization, according to who is actually talking to whom. Thus each person is located in a current system of active intercommunication. (Each position on the new chart is assigned a position code -- PC -- designation; and all subsequent written reports use the code designations, rather than names, with specific titles also avoided, where feasible.) This provides several types of information: The interviewer, for example, knows with some precision the immediate linkages to be associated with any one particular individual. When references are made to others, especially in terms of superiors or subordinates, upward or downward, or even lateral communication flow, the interviewer can more easily determine the positions involved. There is an element of organizational orienteering that is accomplished. Each person in his network of linkages can be "seen."

If this exercise in organizational mapping has shown that communication is flowing in patterns not according to a formal chart-on-the-wall, then some questions might be in order with regard to the "grapevine" phenomenon. Why has this usually extraordinary means of communication linkage become so ordinary? Why has it become necessary for the individuals involved to deviate from established, formal channels, in order to accomplish their tasks?

Later, in interpreting the data gathered, the precise location of trouble spots can be determined. If there has been some sense of difficulty with a particular person in a particular location, then this can be verified by data gathered from that individual, and from those involved in his/her particular linkage configuration. Who is involved? and What are the particularly troublesome behaviors? Still later in the total consultation process, the individual can be approached in terms of his/her particular constellation of linkages, sense the weight of evidence regarding the impact of certain questionable behaviors, and perhaps be more likely to grant credibility to the information presented. It can be reported that "There is a problem situation located here around position 11-A. The behaviors associated with the problem appear to be these. You are the present occupant of that position. Can we discuss the situation?"

Organization structure issues may also be raised in terms of the organization sketch drawn up. It could be related to span-of-control. Is there someone who is feeling distinctly overloaded, who feels that there is simply not enough time to get to the needs of everyone who wants to make contact? Are those linked to this position feeling that the individual "does not care enough" to make time for their concerns? Perhaps a look at the organizational sketch will show that there are simply too many linkages for the person in question to contend with, given the time available. It is clearly true, as Gibson, Ivancevich, and Donnelly have pointed out, that it may not be simply a matter of too many linkages. There is agreement here with their statement that

> The critical consideration in determining the manager's span of control is not the number of potential relationships. Rather, it is the frequency and intensity of the actual relationships that are important [4, pp. 434-435].

However, there may be a problem with the simple number of linkages, and if there is stress as outlined above, perhaps the number involved should be reviewed.

Again, the organizational sketch, in association with the data gathered, may call attention to the number of layers in the hierarchy present, and the location of persons relative to these layers, especially those at extreme points. If there are complaints about not receiving enough information quickly enough, and the feeling prevails that it takes too long to get questions up and answers down, and there is malfunction at a point that is more critical than its extreme location might signify, perhaps some communication policy or practice needs revision. Perhaps the position itself needs to be relocated, either on the chart, or in actual physical circumstance. If the treasurer is suffering from a sense of inadequate contact with central administrative decision makers, and central administration feels that the treasurer does not seem to catch on to new directives and emphases quickly enough, and the treasurer's charted position is several levels down (and physical location is in a building several miles away), then perhaps several possible changes could be devised to improve communication.

Not the least of the benefits that can come from being able to literally visualize the organization in this form is the occasional location of perhaps previously-unrecognized high-potential high-performers. These could be persons whose communication behavior, interpreted in terms of the interview data gathered from other members of their constellation of linkages, reveal them to be, in sociometric terms, "stars." Certainly when all the data related to a particular person's performance is of a positive nature, that individual might possibly bear a closer look.

Ultimately, an overall conceptualization of the organization's structure provides a viewpoint for top management from which they can possibly observe opportunities for productive change. As Kanter says, "If there is any domain over which top executives have control, it is organizational culture and structure, the setting of the context for others around and below them [10, p. 262]."

EXAMPLE INTERVIEW SCHEDULE MATERIAL

Within the context of an organization whose lines of communication have been realistically portrayed, the interviewer with a well-conceived interview schedule in hand may draw forth extremely useful information across a wide range of concerns, both general and specific. It is the object of another paper to detail the specific items contained within such a guide developed for a particular client in the field; however, examples of the types of questions used might be in order.

When a large automobile manufacturing firm requested a study to follow up on a costly communication-related incident within one of its groups, asking What happened? Why did it happen? How likely is it to happen again? and What can be done to help prevent such an event's recurrence?, an interview-based approache was recommended and agreed to. After several discussions and some preliminary interviews with representatives of the company, it was decided that a general survey of communication-related practices and attitudes would be appropriate. Some of the items as they appeared on the actual controlling interview schedule are outlined below. Since the particular precipitating incident which provoked the request for research assistance by the firm appeared to center around information flow through the organization, perhaps a careful inspection of the questions will reveal the authors' focus on barriers and gatekeeping behaviors.

-- What are the barriers (problems) that exist between your areas of responsibility and other areas (e.g., departments, divisions or offices) that you must interact with within the ____________________ Company __________________ group?

-- What indicators do you look for to determine if information is flowing freely to you from your subordinates?

-- What communication practices have your superiors established for you to follow?

-- Would you briefly explain what communication activities you feel are a misuse of your time during a typical work week? (Probe -- Why?)

-- What is your feeling about the value of the communication exchange taking place during the administrative meetings you attend? (Please explain.)

-- From your experiences, do support personnel (receptionists, secretaries, etc.) in your administrative unit create communication barriers for you or your personnel?

-- Generally speaking, how satisfied or dissatisfied do you honestly think the faculty and/or staff in your organization are with the upward communication climate? (Please explain.)

-- What barriers to upward communication do you think your staff might be experiencing?

It was thought that a key matter of concern would be the attitude toward openness of communication inherent among the members of the group under study. The question designed to discover this was as follows:

-- As a key administrator, what do you consider to be your major responsibilities as a communicator?

The particular idea behind this question was to discover something about the orientation of the interviewees with regard to task-maintenance and human-relations functions. Although the authors recognize that there is no complete agreement regarding the influence on management effectiveness of "structure" or "consideration" variables, and that focusing on these elements in the management behavior mix alone would be overly simplistic, there is still the understanding here that communication flows most freely in a human relations (high consideration) context, other variables being taken into account. Most certainly, in the presence of extremely high commitment to a task-maintenance emphasis, we might expect communication to be less free-flowing than in a situation where there is greater commitment to the human relations function. Penley and Hawkins, in their recent research relating communication and leadership, although stating again that the effects of consideration and initiating structure variables are neither clear nor simple, nevertheless do seem to conclude that perceived consideration is associated with increased information flow [14, pp. 320-325].

Since it is not the purpose of this paper to discuss the merits of the various theories which currently prevail on this subject, perhaps it would be best to merely exhibit here a small section of the report which was eventually passed on to the firm:

AS A KEY ADMINISTRATOR, WHAT DO YOU CONSIDER TO BE YOUR MAJOR RESPONSIBILITIES AS A COMMUNICATOR?

Overall results. Two communication themes emerged from the responses to this question:

a. Task-Maintenance Function. This theme represents the need to obtain and disseminate information pertinent to maintaining established productivity levels and profits. Implicit in this category is a strong orientation to transmit information to target areas. This orientation is highly related to one-way (linear) communication practices.

b. Human Relations Function. This category represents the concern of the communicator to meet the information needs and desires of his employees who make up the orientation, both as individuals and as members of informal groups. This orientation is highly related to two-way (non-linear) communication.

Ninety-six percent of all executives interviewed (24 of 25) indicated a strong orientation toward the task-maintenance communication function. [Table referenced.] Only one individual (of 25) suggested a concern for meeting the human relations needs of his people as a major communication responsibility. Examples of these categories follow:

TASK MAINTENANCE FUNCTION	"My responsibilities are to make sure my people understand what our goals are in this Division from my level downward." [Position code referenced.] "I've got to let people in the field know what the Division goals are on a current basis [and] what we are trying to accomplish, where we want to go, and the results. I also give them advice on how to do this." [PC] "I would characterize my major responsibilities as keeping people informed." [PC]
HUMAN RELATIONS FUNCTION	"My theory of running a plant is communicating with everyone. Complete open door policy. When I go through the plant, I get stopped on the line all the time and people speak to me whenever they feel like it. They are not afraid that they will get their wrists slapped for speaking out. This is one way I keep my finger on the pulse of what is going on. My major communication responsibility is to establish rapport with my people." [PC]

After another item is interjected on another aspect of the study, the interview schedule calls the interviewer back to thinking about his/her orientation to communication responsibilities. Perhaps there are, as a matter of fact, actually two commitments in the minds of the managers, and if one came through most strongly in response to the first question, perhaps the second (equally important?) orientation will emerge with a follow-up question in the same vein. Again, a report section helps to confirm what emerged earlier:

WHAT DO YOU CONSIDER TO BE YOUR MINOR RESPONSIBILITIES AS A COMMUNICATOR ?

TASK MAINTENANCE FUNCTION	"I must prioritize. That is, I must rank material in order of importance for the decision making process. Another minor responsibility is that of delegation. Another is face-to-face meetings with representatives from the dealer organization." [PC]
	"To see that my people in the plant are properly informed on Company policy. It is my responsibility further to see that scheduling is done properly, but this is in the realm I guess of seeing that communications are being carried out at the levels below me." [PC]
	"My minor responsibilities are with retail salesmen and dealers. Sales meetings with the Field Managers are very important, but it's minor because when I'm there, I'm there; but when I'm not, it's their responsibility to be with them at every meeting." [PC]
HUMAN RELATIONS FUNCTION	"I feel that one of my minor responsibilities is to be sensitive to the pulse of our people.' I have to determine whether they are happy or unhappy. I must keep in touch with people down the line especially when a personal or family crisis happens." [PC]

As can be seen from the responses to this follow-up item, the initial emphasis on task-maintenance behaviors was reinforced. The evidence presented seemed to support the conclusion that the organization's executives had probably developed an atmosphere in which communication would be less than free-flowing.

Subsequent questions would illicit information regarding particularly troubling communication situations, their nature, their location, and their frequency of occurence, together with descriptions of examples. When the sum-total of the data gathered was interpreted, some conclusions could be drawn leading to a profile of the organization in terms of communication flow, and the function, and placement of barriers and gateways.

INTERPRETING THE INTERVIEW DATA

As Sincoff and Goyer correctly point out, interview data should not be gathered from an on-going organization merely for the sake of accumulating information [17, p. 59]. Some attempt should be made to use the material productively.

Data gathered through an interview process present particularly difficult interpretation problems. For one thing, there is the problem of significance. If a number of reports of particular behaviors have been gathered, what significance does the material presented have? In general, the approach to the interpretation of the data gathered by the authors in their work has been based on what has been referred to as a Q-sort form outlined by Brooks [2, pp. 165-180]. Given a population, and with a sample of behaviors taken, one can, following this method, test for the probability of certain clusters of responses having been drawn by chance. It should be pointed out here that, in the authors' work, there has been concentration on groups which, at least at top levels, could be surveyed in their entirety, with all concerned being interviewed. (In a small municipality, this includes the city council. In a school system, the school board members are interviewed. In a larger industrial situation, the attempt is made to isolate units, departments, or only those parties directly concerned with particular projects or programs.) The "random sample" aspect of the investigatory process, has, thus far, been minimized. This does not reflect a lack of confidence that the process can be effectively adapted to large, quite complex, organizations. It is simply that the authors' work has not encompassed those situations, and there is some reluctance to theorize about them, at this point. Even so, when a total population is surveyed, at what point should a condition or a behavior be interpreted as significant, along with its supporting evidence? Brooks' work suggests that when the frequency approaches 25 percent, that particular behavior approaches significance [2, pp. 165-180]. The authors have agreed that even a single expression of concern can be of importance, if it reflects a condition which is reportedly disrupting a key administrative process. In all instances, however, the findings are interpreted through a subjective process, relying on the judgment of the researchers. There is always the danger that one will find what one is looking for, that prejudgment and bias (not to mention ignorance) will affect both observation and interpretation.

Two controls are employed, however. One of these is in the form of a committee composed of the interviewers which meets at intervals while the interviews are being conducted. After an initial few interviews have been conducted, a meeting is held, and among the items discussed (with a tape-recorder present) is the commonality and frequency of items raised in the interviews. The interviewers will also suggest approaches to questions, and follow-up lines to pursue in seeking clarification. Additionally, as all the data are being interpreted, one or more persons from the organization under study will be invited to sit in on the final interpretation sessions with their comments encouraged as report elements are being developed. This committee involvement, incidentally, appears to somewhat parallel that suggested by Goldhaber and Krivonos [5, p. 52].

Finally, there is complete agreement with those who have employed the "audit" approach that more than one instrumentality should be used. With this in mind, a survey instrument is designed for the unit under study to verify the observations which emerge during the interviews. Others report using a similar means of checking for accuracy, frequency, and prevelance with reference to the problem descriptions which emerge through the interview data [5, p. 52]. The survey instrument itself is used with all those who frequently interact with the interview principals, and especially where there is a wide-spread base of associates who may be in a more subordinate position, though in communication with the group under study. The authors have given careful attention to the development of a survey instrument process, and the instruments and their programs developed for treatment of the data gathered, are the subjects of a forthcoming paper.

BENEFITS OF THE INTERVIEW APPROACH

As the authors have worked through their methodology with several groups, up to this point, there seem to be a number of specific benefits which can accrue through the interview-based approach:

-- Specific behaviors are highlighted. Actual critical communication episodes are described. A set of examples are developed which can help to show why a given unit or department is experiencing good or bad communication; a benefit similar to that described by Goldhaber and Krivonos [5, p. 47].

-- The concentration of all members of the organization is focused on a function of agreed-upon importance to effective management.

-- Outside, professional expertise is supplied for interpreting the data gathered in the survey. The consultants are also active interviewers, and have a first-hand sense of the organization. To the extent that credibility is communicated, to that extent the expert testimony will have influence.

-- Awareness is renewed as to how each individual fits into the total communication matrix.

-- The perhaps hidden expertise of interviewees regarding solutions to their own problems may be brought forth in an organized manner. As illustrations are forthcoming, interviewers are coached to probe by asking why the interviewee believes certain occurences take place, and what the interviewee thinks might be done about them.

-- The face-to-face interview process encourages the executive to think not only about the process of communication, but also, along with this critical function, about the total life of the organization.

-- The face-to-face interview process also provides an opportunity for going beyond the limits of the usual pencil-and-paper survey instrument. Extra lines can always be provided for writing in "additional comments," but, as the verbal exchange goes on in an interview, it is not unusual for a superintendent, a councilperson, a mayor, or even the president of a big-three auto firm, to insist on expanding on everyone's favorite topic of expertise: communication.

In fact, the authors have typically built a closing question into the usual interview schedule: "Before concluding the interview, are there additional remarks or ideas you feel would be important for us to know, that we have not yet discussed?" And it is not unusual to have a top manager insist on canceling appointments to illucidate further, even though the interview schedule has been accomplished.

-- This approach involves staff at many levels. Their opinions are asked. A significant amount of time is given to the process. For the most part, intense interest is aroused, and expectations for improvement are generated. There is a readiness for change [5, p. 52].

-- The process itself communicates an aura of reality, a sense of first-handedness, even a sense of precision, different from paper-and-pencil exercises which, no matter how well-designed, still bear the mark of the academic exercise.

-- Finally, as in the communication audit, there is presented a set of general recommendations, indicating which attitudes, behaviors, practices, and skills should be changed, added, or eliminated.

A NOTE ABOUT COSTS

Among many justifiable criticisms of this approach, some of which it is hoped this paper has responded to, there is raised by Sincoff and Goyer [17, p. 63], and sensitively discussed by Goldhaber and Krivinos [5, p. 53], the issue of cost-effectiveness. Perhaps these comments are in order: This is most certainly a top-of-the-line approach. The time of the executives involved, travel costs, the costs of recruiting, training, and consulting with the exceptional persons necessary for interviewing at high corporate levels, the supplemental expenses of any paper-and-pencil instrumental employed, processing the data (extremely cumbersome -- and costly -- when dealing with interview data), all add up to significant dollar amounts. However, we are discussing here a critical aspect of top-flight executive performance. While it is agreed, of course, that there are other functions of importance that must be frequently studied in productive organizations, certainly there would also be agreement among the readers of this paper that the communication function is among the most significant.

It must also be pointed out that considerable amounts have been devoted to communication-related studies in sizeable organizations. As cited earlier, Kanter in her work with General Motors, came into an awareness of the "substantial" amounts expended by that giant corporation for Likert/ISR studies over a prolonged period of time, amounts so significant that she was requested to not reveal them in her writing [10, p. 333]. One of the authors is personally privy to the same figures, and understands clearly why it might not be favorable to GM to have their stockholders, and prospective consultants, aware of the amounts involved. Expenditures along this line, however, are never such a threat to corporate solvency, as is implied by Sincoff and Goyer [17, p. 63]. They are always a matter of enhancing organizational efficiency; and, to the extent that they are "sold" that way, such costs are removed from the study, survey, or even audit frame-of-reference, and seen within the context of organizational development. To that extent, money expenditures represented in the "typical" ICA audit budget published a few years ago [6, pp. 19-20] are actually quite modest.

Furthermore, within a context of developing people and more efficient human systems, a new viewpoint regarding costs may be developing. Something accrues to the organization in the process; but something also accrues to the individual, young professionals, present in increasing numbers, who see self-development -- personal growth -- as an expected job-benefit. [4, pp. 191-192] In effect, this has moved into the area of the executive perquisite. To be an effective executive is to be made the object of personal growth measures. If viewed as a perquisite, and as the cost of perks approach in some companies a sum close to ten percent of the total expended on executive compensation [12, p. 29], the conceivable amount available for personal growth purposes becomes quite adequate indeed.

Of equally current concern, and also related to the demand for individual development, is the phenomenon of comparatively young executives who have, in increasing numbers, "topped out" at a relatively early age, with little or no promise of advancement, but with 20 to 30 years of professional service ahead of them [3;8]. Their future self-fulfillment will not come in terms of promotion but in terms of personal development. For them, Drucker says, companies will have to "both step up and considerably change their training [3]." Certainly an intensive, and perhaps periodically repeated, personal review of communication behaviors would, for these people, be an almost-necessary procedure. It would offer a personally-rewarding growth opportunity. There would be motivational implications; and the organization itself would benefit from a renewing exercise.

CONCLUSION

The interview-based approach to the diagnosis of organizational problems can be an exceedingly fruitful method where communication behavior appears to be at issue. Coupled with a clear picture of the organization's individual linkages, and an interview schedule designed to address suspected problems (in addition to discovering proven indicators of productive versus dysfunctional behavior), powerful instrumentality is put to work. The individuals involved can gain from having specific, personal critiques offered of their professional performance; the organization benefits from more efficient overall executive performance. In an age where the pursuit of excellence is gaining increased respectability as a corporate, as well as individual, goal, the approach outlined here may be worth considering.

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CRISIS COMMUNICATION: HOW TO HANDLE BAD NEWS

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ABSTRACT

The purpose of the crisis communication plan is to establish measures and policies to help an organization survive the aftermath of a disaster. Corporate public relations departments should not be reactive when a crisis occurs. Certain communication strategies should be prepared in advance, to prevent an organization from making bad news worse. A crisis communication plan anticipates adversity. The better prepared the organization is to handle a crisis, the better the chance the organization will be preceived as credible and responsible.

CRISIS COMMUNICATIONS

An airline crashes, poison is found in a painkiller, an employee discovers explosive gas leaking in a plant, a hotel walkway collapses, or razor blades are found in your food product; what should a corporation do when the unthinkable happens? How should a corporation respond to a terrified public? How should the media that is clamoring for answers, be handled, particularly before the company knows the facts.

Certain communication strategies should be followed to prevent an organization from making bad news worse. A crisis communication plan should be established to handle the communication of bad news. The purpose of the crisis communication plan is to establish measures and policies to help an organization survive the aftermath of a disaster.

A crisis communication plan should be activated if deaths or human injury occur, or if an event is potentially damaging to the company's image. A crisis is marked by three characteristics. A crisis is sudden, it is urgent, and it is instantly visible to and involves top management.

No company wants a crisis, but disaster can strike a business in many unthinkable ways. Management must be able to respond in a prompt, forthright, and effective manner to present the corporation's case during a crisis.

A crisis communication plan anticipates adversity. The better prepared the organization is to handle a crisis, the better the chance the organization will be perceived as credible and responsible.

A crisis plan should be set up in such a way as to allow an organization to establish a press room, to have an articulate spokesperson, and to construct a crisis team including experts, and an effective means of handling publicity after the crisis.

A communication crisis plan will allow an organization to be better prepared when the unthinkable happens. The crisis plan will provide a blueprint for handling any emergency.

REVIEW OF LITERATURE

Disasters, with loss of life, millions of dollars of damage, and whopping liability suits can strike dread in the largest of companies. Many companies have contingency PR programs ready to handle such unforeseen emergencies as a defective product, a plant accident, or the death of a CEO. Few companies are ever totally prepared to handle a full-scale public relations crisis particularly when the very survival of the company is at stake.

There was a time when a company's first response to an emergency was largely defensive. Corporate policy was to say little or nothing at all, keep the company name out of the paper, and cover up the entire mess.

Today, many companies that have known the trauma of a real crisis, see such tactics as not only archaic, but counterproductive. The public is much too skeptical and the media too resourceful to accept stonewalling and cover-up. A company must manage its own news event. If they do not, it is certain someone else will [6, p. 50].

There are two kinds of crisis that can befall an organization. A crisis can be no fault or at fault, depending on the circumstances of the situation.

A no fault crisis is one in which the corporation is not responsible, but find themselves as victims. An example of a corporation caught in this type of crisis is Johnson & Johnson.

Johnson & Johnson, the makers of Tylenol, commanded 35 percent of the adult over-the-counter analgesic market, accounting for $450 million in annual sales. On September 29 and 30, 1982, seven people in the Chicago area died of cyanide poisoning as a result of taking Tylenol capsules. Within days of the poisonings the company's stock dropped seven points and Tylenol's share of the analgesic market fell off 87 percent [5, p. 10]. This event cast doubt over the effectiveness of the 96-year old pharmaceutical company. It also produced 2,500 news queries and 125,000 stories in the print media alone [6, p. 51].

An at fault crisis usually is one in which a corporation is responsible in one form or another. An example of this would be the 1979 Dow Chemical Company train derailment near a suburb of Toronto. Twenty-seven tank cars were derailed. These train cars contained hazardous materials which caused propane cars to explode. This forced the evacuation of 250 thousand people [10, p. 315].

Whether or not the crisis is the fault of the corporation, the problem can be disastrous. The solution is to handle the crisis in a manner that creates credibility for the organization, shows corporate responsibility, and gains some fair media coverage. Through the establishment of a crisis communication plan, a corporation can survive the aftermath of a disaster.

Crises can be handled through a communication plan that includes the ability to establish a press room, the availability of an articulate spokesperson, the establishment of a crisis team, and the creation of a post-crisis information team.

When disaster strikes a press center should be established at the site of the crisis, or near the center of the crisis. The purpose of the press room is to create a center for information. The room should be equiped with telephones, chairs, and desks. A public relations spokesperson should be present at all time to update and assist media throughout the crisis period [1, p. 20].

The public must be fully informed frequently and accurately, through the media, from the outset. If this is not done, a public information vacuum will develop. This vacuum will be filled by rumors or alarms far worse than the real situation. If an organization does not provide the answers, someone else will. Many times the other sources of information will lead to mis-information.

Richard Hyde, a senior vice president of Hill and Knowlton, who prepares crisis plans for large utility and energy companies, has said, "The less people know about what is going on, the more they fear the possible consequence. It's important, particularly for technologically advanced businesses, to make an all-out effort to educate the public..." [2, p. 57].

During a crisis the press room can become highly valuable when dealing with the media. Whether the company cooperates or not, a news story will be written. An organization's responsibility is to insure information provided to the press is factual and complete. A press room will allow an organization to control information during a crisis. Information can then be used to the organization's advantage.

It is very important to remember that reporters face deadlines hour by hour. Stories will be aired or printed regardless of how far they have progressed. By providing correct, consistent, and current information, even if all the answers are not available, the company can assure fairness in media coverage. It is to the company's advantage to supply the proper information in order to decrease the chance of an information vacuum [9, p. 17].

The most important part of a crisis plan is the spokesperson. It is important to select the right spokesperson who can present the company's case in clear everyday language. The spokesperson(s) should be chosen prior to the crisis and be available at a moments notice to be rushed to the disaster site. The spokesperson should have good communication skills, an understanding of the situation, the ability to explain technical information in calm and clear lay language. Most importantly, the spokesperson should have experience with the media.

The company's case needs clear articulation in everyday language. Selecting the right spokesperson can further reduce the danger that technical details will emerge garbled when the media reports them. An engineer obsessed with every detail, or a scientist who cautiously qualifies every statement does more to obscure than illuminate the company's point of view [14, p. 97].

When a spokesperson is dealing with the media it is important to be sure the corporation appears credible and responsible. To deal effectively with reporters, the spokesperson should follow a few rules in handling crisis communication.

Whether justified or not, silence in the midst of a crisis implies guilt. When a company is completely open about what has happened, it can avoid seeming guilty and, instead, be credited with statesmanship [9, p. 17].

A "no comment" response suggests that the corporation has something to hide. Philip Lesly, a Chicago-based public relations consultant, feels a "no comment' statement gives the public the impression of "an obdurate, hostile, cold, inhuman, monolithic organization" [14, p. 94]. If the spokesperson said, 'I don't know,' followed by 'I will find out and get back to you later', very few reporters would push further. Using this technique the spokesperson would create more credibility with the public and the media.

When a spokesperson is dealing with the media, departure from the text can have devastating results. The spokesperson should not speculate, ad-lib, or speak off the record. This will only lead to misquotes and statements reported out of context.

Arguing with a reporter, even when provoked, will invariably result with the spokesperson looking bad. Demonstrating a great deal of emotion with the media may cause panic, particularly if it is televised [7, p. 10]. A calm approach is important in all crisis communications.

A spokesperson should never try to mislead or cover up the facts of a crisis. The worst thing a corporation can do is to try to conceal the incident by lying. The media is experienced at searching out information and identifying newsworthy stories. A public that is typically skeptical will only assume the worst if an attempt is made to conceal information. The organization's reputation and credibility is dependent on honesty with the press [1, p. 18].

Whenever a crisis has resulted in deaths or injuries, the corporation through the spokesperson should always express sympathy and concern for the victims and their families.

When answering questions the spokesperson should always be straightforward. Good reporters double-check the facts with another source, and a reporter is likely to discover a deception. If this happens the corporation's credibility as a source will be ruined.

Charles Ledgerwood, vice president of operations at Hygrade Food

Products,was the designated crisis leader during the meat processor's frighting emergency. Fourteen people claimed that there were razor blades in the company's hot dogs. Ledgerwood feels that straightforwardness pays off. "Above all, you've got to be open and honest with the press. One thing the experience taught me is that total candor can convert a reporter from a hard-nosed muckraker into a sympathetic company supporter. Not only does honesty pay, but it beats having to remember what you told the media yesterday [6, p. 50]."

If the information the spokesperson must convey is damaging to the organization, it is still to the company's benefit to tell it. The company's honesty will build its credibility as a reliable source of information. Dow Chemical Company executives who have been through crises have seen this work and are convinced it is the best course of action.

During the course of a crisis the spokesperson should accentuate positive aspects of the industry or profession. If precautions were taken to avoid the crisis, point them out, e.g., the company's safety record, continuing precautions, acts of heroism, concern for employees, etc. The emphasis of the good record of the organization should be done without glossing over the negative aspects of the situation.

A spokesperson should express gratitude to the community, employees, and outsiders for whatever help they may have given during the crisis. At all times the organization should try to present the image of concern. This concern will help provide the image of the corporation as a responsible corporate citizen.

If incorrect information has appeared in the news media, the spokesperson should correct inaccuracies. At all times this should be done in a courteous manner. Especially if the company believes that incorrect or misleading statements are being made to the press by persons outside the company [13, p. 50-51].

No one can assure a spokesperson will always say exactly the right thing under every conceivable circumstance. But if a spokesperson is aware of the proper handling of crisis communication, it will help lessen errors. The purpose of a spokesperson is to create a crisis opportunity for the organization, so it is viewed as being credible, concerned, and responsible to the public they serve.

A crisis team should be the experts and support personnel who help filter and interpret the information flow during the crisis. A good crisis plan includes a comprehensive list of persons responsible for each facet of the crisis plan.

A corporation should have experts identified and available both from within the company and among respected third parties. A third party speaking as an independent, who is a disconnected authority, may enjoy more credibility with a skeptical public than either an anonymous company voice, or the CEO. Donald R. Stephenson, director of corporate communications of Dow Chemical Canada, sees the use of the third party as a highly valuable source. Says Stephenson, "We could have said the same thing, but it might have been seen as a cover-up [14, p. 97]."

It is highly important that all experts who are conveying information have good communication skills. If the ability is not there to communicate in lay-language, the source will be of little benefit to the organization.

Dow Chemical Company has prepared for emergencies with a loose leaf binder entitled, "Crisis Backgrounders." This binder contains information on products, locales, and operations. These backgrounders are written in clear and consise language and can be invaluable when trying to communicate technical data to the media.

Dow discovered after one train derailment that "many news rooms used the backgrounders as a factual check against the stories their reporters filed from the site and corrected their reporters' pieces. They used our information to double check the accuracy of conventional newswire stories [11, p. 15]."

After the crisis has been brought under control there are a number of methods to convey positive information to the public. Follow-up stories are important. Press releases should be developed and placed regarding the company's efforts in aiding victims, reconstruction, and future safeguards to prevent such a disaster from reoccurring[3, p. 58].

Speaker bureaus can be very valuable in communication after-crisis stories. Appearances at civic clubs, college organizations, radio and television talk shows, and public forums can help communicate the company's concern, and many other post-crisis decisions. Advertising, educational materials, and an awareness line can also aid the communication of positive information to the public [12].

Communication should not be limited solely to the media. A major source of support is the organization's own staff members. Employees can be extremely influential in the community. It is important that the employees be kept appraised of the situation and be aware of the company's policy regarding it [4, p. 21].

A corporation should anticipate adversity and invest time in developing a crisis plan. No one wants a crisis, but by following the basic crisis plan guidelines consisting of: a press room, spokesperson, crisis team of experts, and post-crisis follow-up, it is possible to create an opportunity for a company to be, and be perceived as, a responsible corporate citizen.

CRISIS APPLICATIONS IN ORGANIZATIONS

In today's environment every large company is a prime candidate for a crisis. Corporations should have an operational plan for every possible crisis. Crisis preparation should include three basic rules: investigate for potential problems and find ways to avoid them; make a plan; and know how to recover the company's good name [2, p. 57].

A good crisis plan includes a comprehensive list of persons responsible for each facet of the crisis plan. Who will gather facts, provide information, write official statements, and initiate the investigation, are a few of the questions that should be answered.

The crisis team should be headed by the official company spokesperson and at least two alternate speakers. The Team must be able to provide news quickly and completely. The spokespersons should talk together from the same platform; cover everything as thoroughly as possible; and provide regular and, if necessary, frequent updates.

Companies with several offices or plants should have prepared backgrounders and statements on the company's operations. These communication plans should be available to be carried out by a local person such as a plant personnel manager.

Company representatives with weak speaking skills should be trained to address the media effectively. Even a good speaker can benefit from a professional coaching session [1, p. 19].

It is important to maintain credibility during a crisis. Concern for the public interest must be the most important facet of a crisis plan, because it is ultimately the corporation's own self-interest that will be effected.

Gulf Oil Corporation has realized that it may take years for a company to earn and build a good reputation, and only one day of a mishandled crisis to destroy a good reputation. Gulf Oil sought the advice of Burson-Marsteller, a public relations consulting firm which had designed disaster communication training programs.

Burson-Marsteller and Gulf's public relations department took a year to research and devise a training program of sufficient realism to convince managers of the importance of community relations. The result was 'Crisisport,' a day-long, intensive seminar that confronts managers with a variety of simulated and dramatized community crises. During a day in which 'everything that can go wrong does,' a hostile community attacks the managers with labor demands, civil rights criticism, consumer complaints, and environmental restrictions. Film, slides, television, and radio are all used to dramatize the incidents. Professional actors are hired to play many of the roles.

Throughout the day the managers are required to participate vigorously. They are called upon to answer angry telephone calls, talk to inquiring reporters, meet with activists, and government officials, and face an angry public hearing. They are required to communicate, to explain Gulf policies, and defend Gulf's actions frequently to hostile and unbelieving adversaries [8, p. 85-86].

Gulf Oil Company's managers have learned the responsibility and awareness that they must know to anticipate problems, and the necessity for setting up a communications plan that will function in an emergency.

CONCLUSION

No organization can expect to be immune to a crisis that may attract public attention and arouse emotion. No one can predict what particular event may lead to a public relations disaster causing an avalanche of bad publicity.

A minor flutter can be magnified into a public panic by the saturation media coverage it can receive. At this point an organization must be prepared to defend its name to the media and to the public who may have many preconceived notions.

Creating a crisis plan that utilizes a press room, an articulate spokesperson, a crisis team backed by experts, and an post-crisis information team, the disaster can become a positive image making experience for the organization.

The purpose of a crisis plan is to make sure the organization does not become the villian in the disaster. The organization should want to appear as caring, deeply concerned, responsible, and highly credible to the media and public with whom it must mutually survive.

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AN INVESTIGATION OF THE ENVIRONMENTAL SCANNING HABITS OF MANAGERS

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ABSTRACT

This article describes an analysis of the scanning habits of managers. Scanning refers to the managers' habits of selecting information from the external environment for use in decision making, planning, or normal operations. The data from this survey are compared to prior studies.

INTRODUCTION

The business needs information much as the human body needs food. Indeed nutriment received by the body from food might serve as an adequate parallel to compare the business need for information. Think for a moment about the long-distance runner's body and how it can function so well when supplied with the proper fruits, vegetables, meats, and liquids. Surely, the business organization's long-run performance depends just as much on a proper balance of information from suppliers, market places, banks, and accountants as the long-distance runner's body does on the food eaten. This article describes the business person's search for that proper balance of information, a search for information that will support those critical activities of adjustments in services that make the difference to the business's survival.

This article attempts to describe information as it enters the business and becomes available to the manager. A few of the questions that are answered in this article are:

1. What sources of information do businesses and managers use?

2. What types of information are important?

3. How much time does the businessperson spend searching for information from the various sources available, e.g., suppliers, accountants, bankers, or printed media?

But before a complete picture is developed of the study, perhaps a few quick foundation points should be mentioned.

Some Starting Points

During the past 15 years, various topics in business literature have commented on the manager's search for the information needed for planning, decision making, and coordination of complex organizations. The most common terms have been environmental scanning [3, pp. 61-62], volatility [8, pp. 40-41], and/or analysis [4, p. 98]. These terms refer to the areas or forces outside the firm which can have a significant impact on the firm.

Another way of describing where this research is starting from is to think about the process of information search. The communication and business literature reflects a general acceptance of the idea that successful firms acquire information from the environment and somehow turn that information into business opportunities. This process is usually thought of as seeking information about events and relationships in a firm's outside environment. The knowledge gained about these events and relationships allows top management to chart the organization's future course of action [9, pp. 6-8]. Yet it is very difficult to develop a picture of this process of information seeking. The request for more specific descriptions of this process is found in several studies of organizations [1; 509; 29;]. This research attempts to add some detail to the picture of information-seeking by managers.

PURPOSE OF THIS PROJECT

The goals of this article are hinted at but not mentioned in the paragraphs above. This paper focuses on the business's search for information from its external environment. The questions asked in this paper reveal the purposes of the project.

Specifically, the project asked the following types of questions about business and manager's search for information.

1. What sources of information are used to acquire information outside of the firm?
2. Which of the sources provide the most usable and important information?
3. If certain sources are important, how often are they used?
4. When the businesses take specific steps or actions in their market place, how long does it take to receive feedback in the form of actual results?

5. Do businesses answer questions about information sources, etc. differently than organizations answered the same types of questions 10 years ago?

While many other questions are asked, it is the answers and the implications from those answers that serve as the guiding purpose of this project.

The Search for Answers

This project's search for answers started with a review of methods and techniques used by organizations to acquire information. The previous writing and research revealed a general lack of attention to the business firm's information search processes. Cohn and Lindberg's work in 1972 and White's [2, p. 18] work in 1981 describe significant differences between small and large business information processes, but are not very specific in their comments about sources, use, or types etc. Indeed Jones [6, 218-220] describes the importance of the topic of information search by suggesting that productivity improvements of businesses in the 1980s are found in the organization's informal and short-term oriented information processes. However, Jones does not answer the specific types of questions asked in the section above that would provide a base for comparisons among organizations.

In order to answer the questions, survey data were collected from a limited number of business firms. Several characteristics were sought in these business firms. Because the study is exploratory and descriptive in nature, a data source was needed that held a "Gestalt" or total view of the organization. The data source needed an overall view of the firm yet also retained a detailed knowledge of the requirements of the functional field within the organization. A knowledge that allowed the data source to comment on the information needed for function as well as the strategic decision so important to business. With these general requirements in mind, the survey was limited to small business owners and managers (e.g., drugstores, clothing stores, and restaurants). Relatively new organizations were eliminated by using only organizations that had survived longer than a three-year period. (This time period was chosen to avoid the highest failure rate reported for consumer durable and nondurable firms [5].) The survey was also restricted to non-franchise small businesses in order to avoid an organized, formal information collection system. The total number of business observations made for the study was 30.

The survey instrument used for this study was one adapted from Kefalas and Schoderbek's [7] work in analyzing information processes for organizations. Word changes were made in the questionnaire to reflect the situations, problems, and concerns of the business selected for this study. By selecting an instrument used in prior studies, this project is able to identify the current business activities as well as draw comparisons to organizations' activities in prior years.

The questionnaire consisted of several questions about a business person's methods and sources for acquiring information. To assist the respondents in their answers, the questionnaire classified the organization's need for information into four environments: government, technology, market place and economic conditions. Brief descriptions for each segment of the environment, similar to the ones below, were included on the questionnaire.

Government information--tax policies, energy conservation, transportation, environmental control, product safety, and consumer protection.

Technology information--new service product available, improvements in existing products or capital equipment.

Market place information--demographic and population data, size and sale potential, competitive products, entry of new firms.

Economic condition information--change in interest rates, inflation, unemployment, or economic growth; raw materials changes important to product mix; and major changes in cost of business operations.

With these descriptions available to the respondents, the questionnaire proceeded to ask questions about the amount of time and effort the businessperson spends to acquire information from outside the organization. In addition, respondents were asked to judge the value, importance, and quality of information received. Information sources were the final area the respondents were quizzed on.

Answers to the Questions

The results describe the business process of acquiring information and its value to the manager. These results from the structured interviews of business are then contrasted to the results reported on these same issues in Kefalas and Schoderbek's study ten years ago.

The results reported by today's business offer clues to its methods of operations and needs of its managers for information. When asked how much time they spend actively seeking information, today's manager reports that a little over one hour each day is consumed seeking information. The business manager reports an average of an hour and thirty minutes in a search for information. The manager in Kefalas and Schoderbeck's study reports an average of just under two hours (one hour and fifty-five minutes). This time is spent searching for various types of information. The descriptions above for market place, technology, government, and economy help in identifying the type of information sought by the manager.

The descriptions for the four types of information are general, yet still provide clues about the businessperson's interest in different types of information. Table 1 shows the four areas of information and the responses by today's managers as well as managers 10 years ago. Of the time spent seeking information, today's manager

TABLE 1

PERCENTAGE OF TIME DEVOTED TO THE INFORMATION SEARCH

	Types of Information:			
	Market	Technology	Government	Economic*
Respondents:				
Manager's Responses 10 years ago	37.92	20.45	17.13	24.50
Today's Managers	33.3	25.0	12.6	29.1

*In the Kefalas & Schoderbeck study the external growth sector and other sectors were presented. In this study they were combined in the economic information area.

reports spending almost 40 percent of his/her time seeking market-based information, i.e. sales potential, competing products and firms, and demographic data. For an average, today's manager spends approximately twelve hours each month seeking such market-based information.

Economic-based information demands the next greatest percentage of search time of today's manager. In this case, the manager is searching for information concerning interest rate, unemployment, and significant shifts in the cost of their operations. On the average, the manager today spends eight hours every month searching for such information. The remaining two types of information are also shown in Table 1.

Notice in Table 1 the comparisons of the managers today to their counterparts ten years ago. The manager today shows a greater percentage of time spent searching for information of the market and government type. The manager in the past reported more time to technological and economic data search. The greatest percentage of time in any one area is reported by managers today in the search for market place data. Managers' concern today for market and economic information are reenforced in questions about the quality of information from the four areas that follow.

In an attempt to define quality in information, this study asked the respondents to describe the four types of information using three specific characteristics. These characteristics of information are as follows:

1. clarity of information--does the respondent understand and use the information,
2. cause and effect relationship--do the respondents believe their firm's action will produce action responses in the specific type of information and
3. time span of feedback--how long does it take information to return to the manager after the organization has acted.

The answers provided in Table 2 show some interesting points about how the managers today view information. Keep in mind, these questions are asking about the quality of information obtained from four different areas or types. Today's managers give the most positive answers to the market place type of information under each of the characteristics--clarity of information, cause and effect of information, and time required for feedback. Indeed, the identical pattern of ranking market place information first, economic second, technology third, and government last is found in all three characteristics.

TABLE 2

QUALITY FACTOR FOR TYPES OF INFORMATION

	Characteristics of Information		
	Clarity of Information	Cause and Effect of Information	Time Span of Feedback for Information
Type of Information			
Government	4*	4	10 months
Technology	3	3	8 months
Market Place	1	1	1 month
Economic	2	2	3 to 4 months

*Rank order with 1 representing the most positive rank.

To characterize the results in Table 2, today's managers are describing government-based information as confusing, unclear as to the direct impact on the firm, and a long time-period to receive a clear understanding of the information. Classic examples of these responses are found with each significant change in business tax laws. Managers are aware of the publicity surrounding the passage of such changes. Yet, as suggested in Table 2, the manager respondent is unclear about the details of the tax change, does not know how it will affect operations, and must wait almost a full year to acquire specific information for his/her firm.

On the other side of the coin, the manager understands the information acquired from the market place, knows it will impact operations, and receives the information quickly. The results of Table 2 follow the pattern suggested in Table 1. The manager spends more time searching for information of the market and economic type and in turn finds better quality, more usable and timely information in these types of data.

One of the goals of this study is to identify and describe the primary sources used by the manager today when searching for information. To accomplish this goal, the respondents were asked to report or describe their regular or normal information search habits. In addition, the study asked managers to describe the sources they use by assessing the value or importance of the information found in those sources.

The figures under usage in Table 3 represent the percentage of managers reporting regular use of a type of media (i.e. printed media, verbal media, or conference/group meeting). Also, specific examples of the type media (i.e. newspaper, lawyers, subordinates, or formal meetings, etc.) are provided. The remaining column entitled, Importance, represents the manager's judgment of the value given to the information source. As the number in the importance column increases (the questionnaire allowed a response from 1 to 7), the respondents are describing the source information as more important. Table 3 also provides a contrast of the responses of managers today compared to those ten years ago.

The contrast in numbers found in Table 3 are most interesting. First, the manager today appears to use verbal media far more than printed or conferences/group meetings. Sixty-four percent of the managers today report using verbal media as compared to 34 percent for printed media and 28 percent for the meeting categories. By contrast, the manager ten years ago reported much more balance in the three source categories (printed media 58.9%; verbal media 64.16%; and meetings 69.3%).

A second interesting contrast is reported for the three primary source categories under the importance column. Notice the higher numbers reported by today's manager respondents in comparison to managers ten years ago. The manager today has a very positive feeling

TABLE 3

INFORMATION SOURCES REPORTED BY MANAGERS

	Managers/Owners			
	Today		10 Years Ago	
	Usage	Importance	Usage	Importance
Information Sources:				
1. Printed Media	34.1	5.3*	58.9	2.6
Gov't Pub.	29.2	2.5	70.79	2.8
Newspaper & Mag.	95.8	5.0	NA	NA
Research Pub.	16.7	5.0	80.9	3.6
2. Verbal Media	64.2	5.1	55.1	2.7
Lawyers/Advisors	58.3	4.6	49.4	1.9
Customers	100.0	5.8	57.3	3.0
Suppliers	91.1	5.5	57.3	2.6
Subordinates	58.3	5.4	84.3	4.5
3. Conference/Group Meetings	28.4	4.5	68.3	3.1
Industrial Meeting	33.3	5.3	75.3	3. 2
Formal Meeting	25.0	4.3	84.3	4.2
Ad Hoc Meeting	12.5	4.8	88.8	3.3

*Represents an average for the factor when ranked on a seven point scale. The higher value represents a higher value of importance given to the factor.

toward data received from information sources. Even when a source is used infrequently--such as conferences/group meetings--the manager today places greater value on the information received in comparison to the manager a few years ago.

When one looks at the specific examples of information sources listed in Table 3, the manager today reports highest usage for customers (100 percent of those reporting) and suppliers (91 percent). These numbers are much higher than any other specific source except newspaper and magazine (95.8 percent). Notice the manager ten years ago does not report such high percentage of usage for any specific sources. The 88.8 percent reported for Ad Hoc meeting represents the highest usage percentage ten years ago. The managers ten years ago reported the highest percentages for use of research publications, subordinates, and formal meeting. Today's managers report much lower usage figures for these information sources.

When the figures for importance are analyzed by specific sources, the manager today continues to report higher figures than the management group reported ten years ago. Today's managers are describing these specific sources as very important to their business operations even when they do not make great use of the source.

Some Concluding Points

At the start of this article, a parallel is drawn between the business need for information and the long-distance runner's need for food. To continue that parallel, this study finds several interesting points about the manager's information diet.

The manager's information diet is characterized in this study by several key factors:

1. today's manager searches regularly for information from the external environment,
2. managers have distinct preference for certain types of information, and marketplace primarily, and
3. managers indicate a preference for verbal media sources in their search.

Managers today spend an average of one and one half hours per day seeking information from the external environment. When one considers the time pressures and in general the cost of managerial time, information seeking activity becomes an important cost item when managers are spending over an hour each day in the activity. It is interesting that the time reported in this study is less than reported by managers ten years ago. What does this glimpse of managerial activity suggest? In an information-based society, the manager may be more available. And certainly, the information technology is faster and more available today. However, not all interpretations of this reduction in time spent searching for information are positive.

When managers are in an information overload situation, they simply reduce the focus activity. Are managers today making a conscious or subconscious decision to reduce their search activity? In addition, when managers are dissatisfied with their sources they may decide to reduce their information search time. However, until research gives more indicative of the relationship, managers able to reduce their search time should be viewed in a positive manner. Managers are remaining current with less time spent acquiring the current perspective.

The questions summarized by Table 1 and 2 attempt to grasp the manager's orientation and assessment of the quality of the information received from the environment. Managers indicate a distinct preference for market related information. Managers spend more of the other alternatives. Also, managers seem more satisfied with the quality of market-related information. They understand market related information. When managers acquire market related information, they understand the impact feedback from market relation information quickly. The area of information judged poorest in quality was government. It is also interesting that managers spend the least amount of their search time pursuing government-related information. Perhaps they rely on specialized assistants--accountants, lawyers, etc--to keep them current on government-related information.

Several interesting glimpses of the manager's information search with the source responses are summarized in Table 3. Managers depend on verbal more than printed or conferences sources in this information search. Of all the sources considered, the most frequently used are customers, suppliers, and newspapers. One would expect these sources to supply the market-related information the managers seem most interested in acquiring. These sources-- customers, suppliers, and newspapers--have taken on greater importance to today's managers in comparison to the responses ten years ago.

In looking at sources that show usage decreasing one might wonder what is happening to intrafirm sources such as subordinates, meetings, and conferences. These sources are reported as being used much less by today's managers to acquire external information. Again, the glimpse of managerial activity will prove interesting to investigate.

In closing, this study is descriptive in nature. Yet, it provides several areas for further research. Will statistical differences exist in the types of information sources managers are using today? Are managers too concerned with market-based information to take advantages offered by technology or government-related information? One might suggest that the search for the manager's information diet has just begun.

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STORYBOARDING AND GROUP WRITING: PRELIMINARY FINDINGS

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ABSTRACT

Complex business communications such as proposals require a group writing effort. The storyboard has been used by numerous corporations for generating ideas, concepts, and proposal drafts. To study its impact, a three-part simulation was developed and presented to groups from five organizations. This paper describes the simulation, presents typical group reactions, analyzes the responses, and presents preliminary findings. Additional study is planned, but further group performances are not expected to change the observation that the storyboard, used by a group of professionals on a complex task, proves to be an effective device in structured brainstorming and interactive brainwriting, and for project management.

OVERVIEW

Many complex communications tasks in the contemporary business environment cannot be accomplished by a single person, and require a group effort. A fine example is a new business proposal that calls for a great deal of detailed information and very limited time to produce the finished product. On major competitions, the period may be more than three months, putting a strain on both talent and resources.

The proposal, though written by several experts, must appear as if it were produced by a single entity. It also offers an ideal situation for study. To create a multi-volume proposal effectively with in-house capabilities calls for writing tools a group could use that would be inappropriate for an individual.

Storyboards were developed in the aerospace industry to meet the need to manage the production of numerous authors with diverse styles and levels of ability. This group writing tool was adapted from its original use in organizing and integrating the story, graphics, and sound for movies and animated film. The intent of using such a tool was the reduction of production costs through more efficient use of professional talent such as actors and film crews. Over 20 years ago, James Tracey developed the concept and applied it to writing proposals at Hughes Aircraft Company [2]. Numerous variations, Tracey cites fifteen, of the basic storyboard have become a standard approach to the writing of large proposals.

Obvious goals for any group writing task in a business setting include:

- meeting the deadline
- managing the production of the proposal, its publication
- managing the talent, creativity, and technical expertise of the team members
- creating group consensus, and thus continuity of themes and details
- potentiating the power of an individual through the activities of the group

To study the impact of the storyboard as a tool in this process, a simulation was developed and presented before participating groups from five organizations over the last two years. The groups were made up of professionals from the following:

- Grumman Aerospace Corporation, Proposal Seminars
- National Humanities Faculty, Excellence in Teaching English Program Summer Institute
- Northeastern University MBA Program
- Northeastern University MA in Technical Writing Program
- American Airlines Training Corporation, Proposal Seminar

Participants in all the groups can be characterized as highly motivated and educated. Most had professional expertise, but not necessarily previous experience with proposal preparation, even the scientists and engineers in the various groups. Most had no knowledge of group writing techniques, or experience in a group situation using brainstorming to meet a specific goal. All participants were in familiar surroundings, except for the National Humanities Faculty people who were at Vassar College for the two weeks of the summer institute.

Much has been written on brainstorming techniques in workplace settings. Arthur B. VanGundy in Managing Group Creativity [3] discusses in detail the literature on the types of groups and the relative advantages of each. He notes for example that "the common understanding is that nominal groups [individuals who pool their independently generated ideas] produce more ideas than brainstorming groups" which generate ideas together in the same room either orally or in writing. With problems involving many parts that can be solved through a division of labor, such as a large technical project, a group rather than individuals are more likely to resolve the issues.

For this study, two types of brainstorming groups were used: structured and unstructured. The structured group, which follows guidelines presented by a designated group leader, was the test group and used the storyboards. The unstructured group, often called interacting groups, had no direction other than a copy of the Request for Proposal used in the simulation and a deadline to meet if no leader was designated.

VanGundy describes two "brainwriting groups", nominal and interacting. These groups generate ideas in written form primarily, rather than orally. Individuals in a nominal group, or a group in name only, generate ideas independently at different locations, then pool their ideas, eliminating duplicates. Interacting groups often work in the same room for a specified time, writing ideas on paper, then placing the papers in the center of the table for others' suggestions, comments, expansions, and modifications. According to VanGundy, written ideas were of greater quality and lesser quantity, though took longer to generate, than the ideas of the oral groups, most likely because the act of writing requires a greater commitment to the idea from the writer than for an oral communication of it.

During the storyboard review, a segment of the third part of the simulation, participants were able to comment orally and in writing on the ideas presented on the storyboards, which were placed on walls before the entire group. Comment sheets were attached for suggestions or modifications. Based on VanGundy's quantitative assessment of procedures for generating ideas, "structured brainstorming and interactive brainwriting appear to be the best procedures when all criteria are considered together [3]."

The storyboard is used to generate ideas in high-technology industries such as aerospace. This investigation observed several groups from five organizations using this tool for group writing in a proposal simulation. The objective is to determine the appropriate application of the storyboard in group writing, its strengths, and its limitations.

This paper presents:

- a brief description of the simulation
- synopsis of the reactions of selected groups
- analysis of the group responses
- preliminary findings
- future investigation

DESCRIPTION OF THE SIMULATION

To observe reactions to the storyboard as a group writing tool, the simulation of a proposal situation offers some control over variables, since the same simulation content, groundrules, and time limits can be presented to several groups. The composition of each group is different. That is one of the variables necessary to determine if the storyboard can have an advantageous impact in groups made up of people from different backgrounds. Even though other factors in the simulation can remain relatively constant, all factors cannot be controlled for this investigation, and it still rests on observation of the workings of the groups. However, this investigation tries to remove the "anecdotal" quality of the experience of participants.

The simulation is made up of three parts. These parts bring the group up to the point of the individual writer's drafting of a portion of the proposal. The parts are:

- Request for Proposal Analysis and Discussion
- Outlining and Creation of a Common Outline
- Storyboarding and Storyboard Review

The simulation could have included three additional parts: Drafting, Reviewing, Production of the Final Text. In the interest of time, and also because the participants in each of the groups are in seminars which often practice those skills on examples directly related to their jobs, the test groups have not been required to produce a polished final version, only an agreed upon "predraft." The unstructured group and the NHF group created final versions of the proposal, each was given approximately three hours of group contact spread over a three-day period to produce a clean final copy. The other groups produced an agreed upon storyboard at the end of three hours on two separate days. Future groups, one control and one using the storyboards, will produce the entire proposal in finished form.

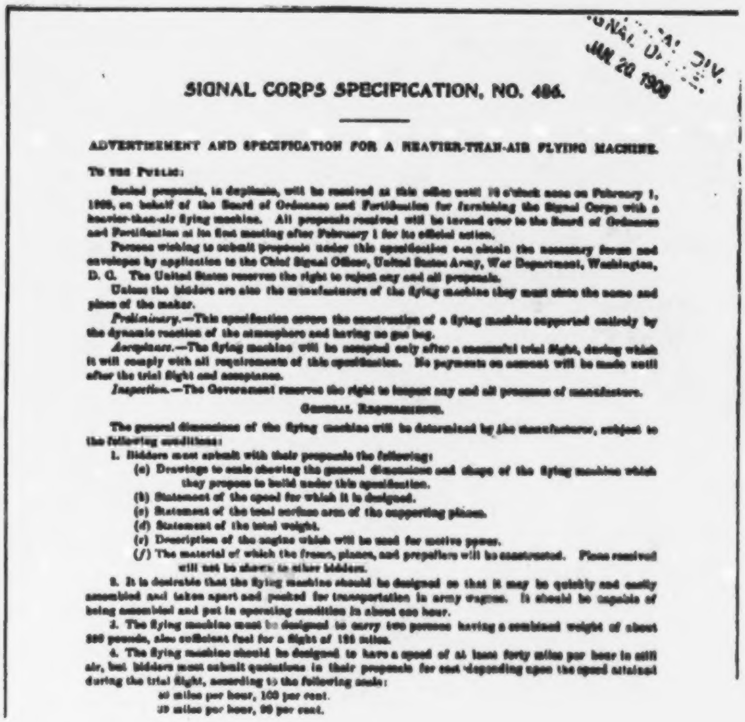
Part I. Request for Proposal Analysis

In Part I, Request for Proposal Analysis and Discussion, a group of 15-25 participants are first divided into working groups of 3-5. Usually there are four or five of these working groups. Each participant is given a copy of the three-page Request for Proposal (RFP): "Signal Corps Specification, No. 486. Advertisement and Specification for a Heavier-Than-Air Flying Machine." The example, Figure I, is a historical document that was issued in 1907. Figure I is a partial reproduction of this document [1].

This RFP is used in all simulations, structured and unstructured, and it lays out the specifications for the first aircraft to be purchased by the United States. The RFP asks bidders to provide details on a concept for a heavier-than-air flying machine that will be subjected to a series of speed and endurance tests at a date determined by the bidder's delivery of a model. The specifications also call for detailed drawings, surface area of lifting planes, safety devices, test plans, bonding, powerplant, operator training, starting, take-off, and landing. The RFP contains an incentive stipulation that rewards offerors 10% of the contract value for each increment of speed.

Participants, during the initial stage of the simulation, are

FIGURE I Partial Reproduction of RFP for First U.S. Aircraft



SIGNAL CORPS SPECIFICATION, NO. 486.

ADVERTISEMENT AND SPECIFICATION FOR A HEAVIER-THAN-AIR FLYING MACHINE.

given 10 minutes to read the document and determine as a small working group the answers to two questions: 1) What is required? ; 2) What does the customer want? A short 10 minute discussion of all working groups follows.

Generally all groups list the specifications presented in fourteen numbered paragraphs, including a requirement for posting a bond and a schedule for the delivery date of the test aircraft. Some small groups voice confusion that the RFP calls for the aircraft to be delivered on the February 8 deadline, commenting that the RFP was issued on December 24, making the time to prepare the proposal a little over one month. In the discussion that follows, this misconception and misreading of the RFP is usually corrected.

The second question calls for much more than the obvious answer that some participants give, that the customer wants a proposal. Participants look beyond the letter of the RFP to analyze the customer's needs, using the RFP for evidence. That also serves to focus the participants' attention on the issues of the proposal and the possible themes that they can provide. The theme most commonly cited by the groups is speed. The incentive clauses indicate clearly to all groups that the customer has placed a premium on the speed of the aircraft and is willing to pay extra for it.

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The discussion of the RFP is limited to approximately 10 minutes, since at that point the participants begin to generate ideas on how to design the machine.

Part II, Outlining

Part II, Outlining and Creation of a Common Outline was prefaced in all groups, except the control groups, with an explanation of two approaches to outlining. Participants are given instructions on only two types of outline that could be applied to this RFP and told that other options, though available are less practical for the task. The two options are the RFP outline and a topic outline. Of these two, the RFP is favored because of the way the proposals are evaluated by the government. At Grumman, groups are shown a 12 minute slide presentation made by the corporation's proposal operations. Essentially it discusses the two preferred outlines and details a method of making an RFP or topic outline by underlining or highlighting key words and phrases, then building the outline from those words either in the same order or as they appear in the RFP, or grouped under topic headings such as Design Overview or Management.

The same small working groups of three to five create an outline with a 30 minute deadline. Then the outlines of the four to six working groups are presented to the whole group. The group is directed to choose a recorder, and then is given 30 minutes to select the best outline, or create a composite outline from the best features of each of the parts of the others. Again, within a relatively unrealistic deadline of 30 minutes, participants discuss and decide on an outline. The recorder, between sessions, creates a readable signed-off outline for use during the third part of the simulation, storyboarding. An example of a common outline appears in Figure II.

Part III, Storyboarding

Part III, Storyboarding and Storyboard Review was used by all groups except the control group. Each participant is given a copy of the storyboard, shown in Figure III.

A brief explanation of its use, as well as an explanation of the review process which follows the storyboard exercise, are provided. The storyboard is described as a brainstorming tool, merely a device for them to record the themes, mainpoints, and graphics that they plan to incorporate in the section of the proposal assigned to them. Sections of the outline and the corresponding sections of the RFP are assigned to the working groups of three to five. The 45 minute deadline forces the working groups to generate ideas and come to a concensus.

The storyboard review which follows involves a presentation by each group. The completed storyboard is attached to a conference room wall, a blank sheet for comments and suggestions beneath it. The group presentor uses the storyboard as a device to stimulate the oral discussion of the key points, summary sentences, RFP requirements, and graphics. Members of other groups are encouraged to provide comments and suggestions beneath it. Figure IV is an example of a completed

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FIGURE II Example of Common Outline

SPARROW CORP.
PROPOSAL TITLE Heavier Than Air Flying Machine **DEADLINE** 10/84

THEMES
- ● SPEED
- ● PERFORMANCE
- ● DESIGN
- ● COST

REQUEST FOR PROPOSAL PARAGRAPH #	**OUTLINE Section and Descriptive Title**
	VOL. I.
none	1. Introduction and Summary
	2.0 Performance
1b;4;5;7	2.1 Speed
3	2.2 Range
3	2.3 Payload (2 Guys)
1b; 4;5;6;7	2.4 Range/Payload Capability
	2.4.1 Calculations of range and endurance
	2.4.1.1 Test Data for back up
	2.4.1.2 Backed up by "X-1" experience
	2.4.2 Performance Calculations
	2.4.2.1 Define basic performance
	2.4.2.2 Describe how to achieve maximum desired performa
"Prelim";1a-f	3.0 Design
1d	3.1 Weight
1e;8	3.2 Engine
2;8;10	3.3 Transportability
2;10	3.4 Assembly/ Disassembly
"Prelim";Insp;1a;2;8;10	3.5 Construction/ Configuration
1f	3.6 Material
10;13	3.7 Operation
9	3.8 Safety
8;13	3.9 ILS Analysis
"Acceptance"	4.0 Test and Evaluation:Acceptance and Flight Test
4;5;6;7;8	4.1 Time
3;6;7	4.2 Endurance
4;5	4.3 Test Recordings
7	4.4 Site Selection (Ft. Meyer)
"Inspection";1f	5.0 Manufacturing and Quality Assurance
8;13	6.0 ILS (Integrated Logistical Support)
13	6.1 Training
none	6.2 Spares
none	6.3 SE
none	6.4 Publications
none	7.0 Management
	7.1 Organization
	7.2 Past Performance
14	8.0 Schedule
4;11;12;13;14	9.0 Cost: Terms and Conditions
none	10.0 Wrap Up
none	APPENDICES
VOL II--4;11;12;13 14; "Acceptance"	

VOLUME II
- 1.0 Introduction
- 2.0 Cost Certification--Description of Efforts
- 3.0 Reps and Certs [illegible]
- 4.0 Terms and Conditions

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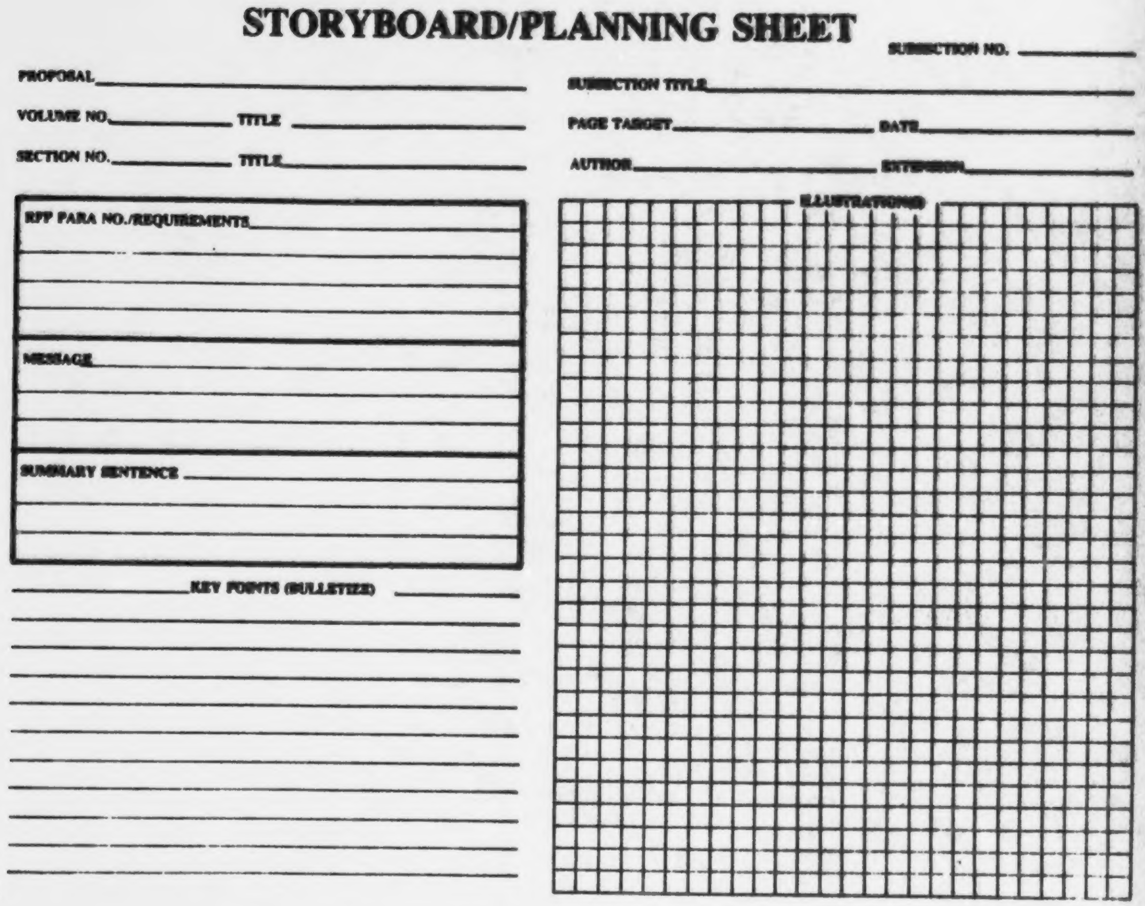
FIGURE III Storyboard/Planning Sheet
(Courtesy Grumman Aerospace Corp.)



STORYBOARD/PLANNING SHEET

SUBSECTION NO. ____________

PROPOSAL ____________
VOLUME NO. ____________ TITLE ____________
SECTION NO. ____________ TITLE ____________

SUBSECTION TITLE ____________
PAGE TARGET ____________ DATE ____________
AUTHOR ____________ EXTENSION ____________

RFP PARA NO./REQUIREMENTS ____________

MESSAGE ____________

SUMMARY SENTENCE ____________

KEY POINTS (BULLETIZE)

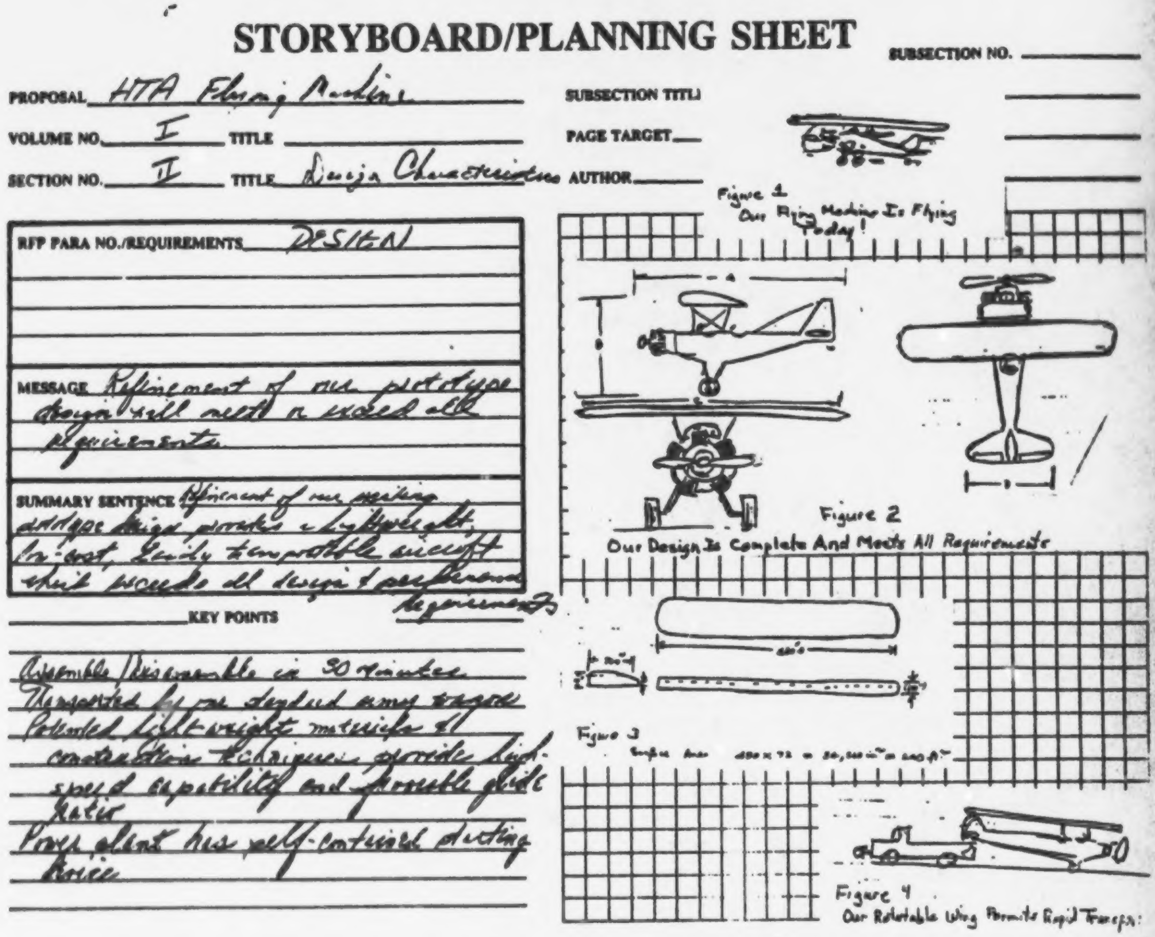
ILLUSTRATION(S)

storyboard used in a recent simulation.

In many instances the review reveals the presence, or absence, of continuity of themes, consistency of information and placement of ideas. The group comments on each storyboard, and comments are intended to be incorporated into the draft, not into a new storyboard. The storyboard is a pre-writing device that is more useful in that stage of writing, than in the drafting and revising stages.

Other possible parts of the simulation, as was explained, are deleted in the interest of time. Once the participants were able to reach a concensus on the outline, main points, and contents of the proposal, and assign parts of the whole, the tasks of drafting, revising, and preparing a final version are largely performed by individuals rather

FIGURE IV Completed Storyboard Showing Design Characteristics



STORYBOARD/PLANNING SHEET

SUBSECTION NO. ______
SUBSECTION TITLE ______
PAGE TARGET ______
AUTHOR ______

PROPOSAL HTA Flying Machine
VOLUME NO. I TITLE ______
SECTION NO. II TITLE Design Characteristics

RFP PARA NO./REQUIREMENTS DESIGN

MESSAGE Refinement of our prototype design will meet or exceed all requirements.

SUMMARY SENTENCE Refinement of our existing prototype design provides a lightweight, low-cost, easily transportable aircraft which exceeds all design & performance requirements.

KEY POINTS

Assemble/Disassemble in 30 minutes
Transported by one standard army wagon
Patented light-weight materials & construction techniques provide high-speed capability and favorable glide ratio
Power plant has self-contained starting device

Figure 1
Our Flying Machine Is Flying Today!

Figure 2
Our Design Is Complete And Meets All Requirements

Figure 3
Surface Area 480 x 72 = 34,560 in² = 240 ft²

Figure 4
Our Rotatable Wing Permits Rapid Transport

than groups. For that reason, the simulation did not include these tasks for the group participants in the corporate environments since the they were participating in the simulation as part of their training in an ongoing proposal effort.

RESPONSES OF THE GROUPS

The simulation was performed by individuals in groups at 1) Grumman Aerospace Corporation, 2) National Humanities Faculty, Excellence in Teaching English Summer Institute, 3) MBA Candidates at Northeastern University, 4) MA Candidates at Northeastern University, and 5) American Airlines Training Corporation. Members of each of these groups were working adults, most with completed college degrees, and a high number with advanced degrees and professional experience. The American Airlines and Grumman groups were mostly male engineers. The Northeastern University groups were predominately business people with mixed academic training. The National Humanities Faculty participants were all teachers of English in the primary and secondary schools from around the country.

The simulations revealed that all groups from these five organizations were able to:

- work in groups and with peers on an unfamiliar project
- discern the critical issues in the RFP by analyzing the customer's needs
- create a common outline, exhibiting organization and cooperation
- follow the requirements of the RFP
- incorporate concepts for graphics early on
- work with the structured brainstorming technique of storyboarding
- meet the deadlines

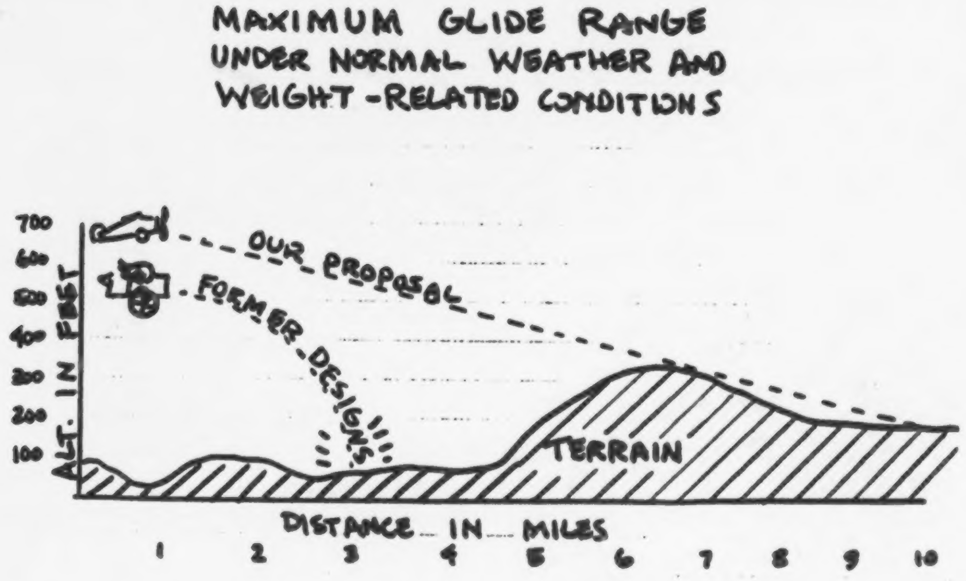
Some of the groups exhibited some revealingly different responses. The National Humanities Faculty group, for instance, experienced a stronger initial reluctance to "buy-in" to the simulation. Members of this group, and some MBA and MA candidates, voiced some initial reluctance to participate in the simulation when they learned that the project involved writing a proposal for an airplane. They said that they could not do it because they knew nothing about aircraft and on top of that they had absolutely no mechanical aptitude. Figure V demonstrates their ability to include concepts for technically oriented graphics. Since the NHF consisted of two competing groups that performed the simulations simultaneously, these groups were able to make oral presentations of their responses for the competing group.

Control groups were the MA candidates in technical and professional writing at Northeastern. They were given three days to submit their responses. They instead took only two hours, presumably because they all had a heavy schedule of work and course work to attend to. Rather than meet out of class, they prepared a short response. Figure VI is one control group response. Other responses were introductory in nature and offered no detailed coverage of the RFP.

ANALYSIS OF RESPONSES

Of all the responses, some participants' initial reluctance to the simulation appears to be the most revealing and the most persistent.

FIGURE V NHF Group Concept for Technically Oriented Graphic



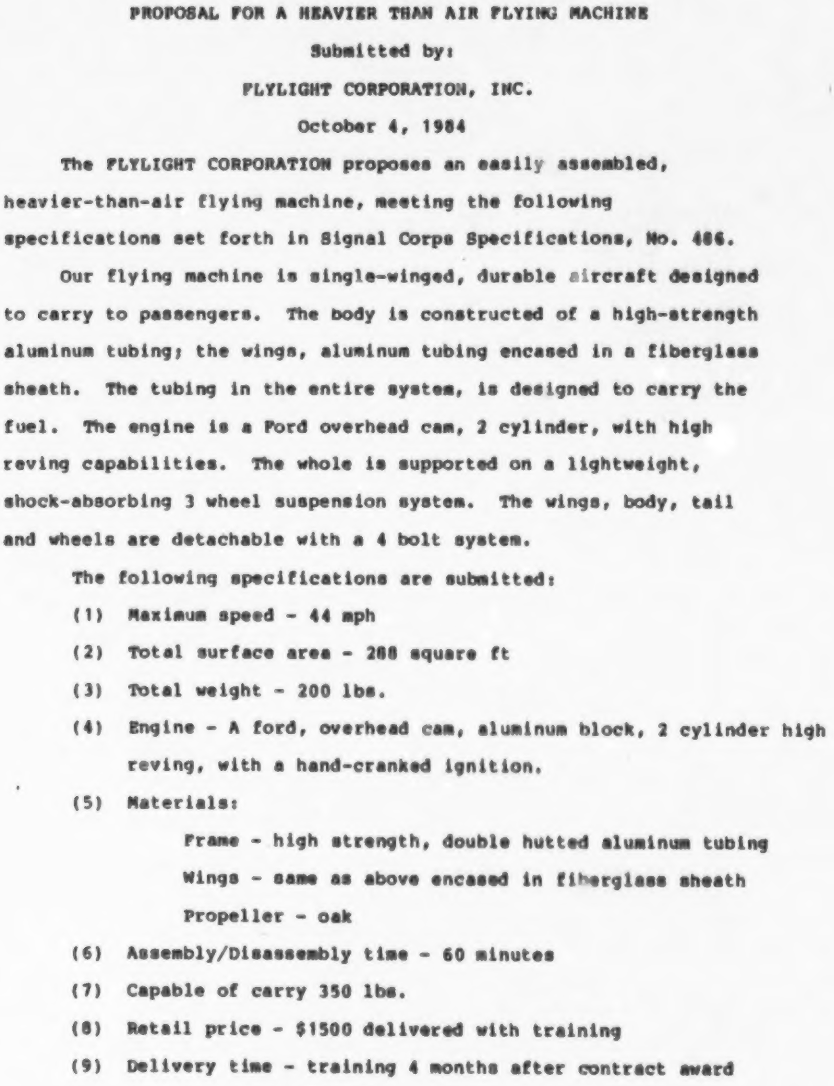
The participants in the National Humanities Faculty had a more difficult time beginning for several reasons. One, the proposal simulation created an atmosphere of competition, something quite alien to English teachers. It required a team effort, an uncomfortable situation for individuals used to working alone. The engineers, on the other hand, had little or no problem with the competition or team work nature of the simulation since those are common aspects of their professions and required little adjustment.

The difficulty some participants had initially to the proposal for an aircraft reveals that the simulation presented them with a threatening situation. Writing ideas on the storyboard creates a situation that forces the exposition of ignorance in front of peers. For actual proposals, this is a necessary part of the review process. It allows weaknesses in the team's presentation to be identified early enough in the proposal effort to allow them to fix the weaknesses and turn them to strengths. Also, writing requires a higher degree of commitment to an idea than speaking. Numerous participants wanted more time to discuss the responses before they made a commitment to writing.

That is the point of the storyboard. It forces the ideas to be committed to paper before a participant can become married to the concept and unable to change as a result of reviews.

Several engineers, on the other hand, had more difficulty with the artificiality of the simulation. A few insisted that they had to

FIGURE VI Control Group Response Lacks Detailed Discussion and Graphics



PROPOSAL FOR A HEAVIER THAN AIR FLYING MACHINE

Submitted by:

FLYLIGHT CORPORATION, INC.

October 4, 1984

The FLYLIGHT CORPORATION proposes an easily assembled, heavier-than-air flying machine, meeting the following specifications set forth in Signal Corps Specifications, No. 486.

Our flying machine is single-winged, durable aircraft designed to carry to passengers. The body is constructed of a high-strength aluminum tubing; the wings, aluminum tubing encased in a fiberglass sheath. The tubing in the entire system, is designed to carry the fuel. The engine is a Ford overhead cam, 2 cylinder, with high reving capabilities. The whole is supported on a lightweight, shock-absorbing 3 wheel suspension system. The wings, body, tail and wheels are detachable with a 4 bolt system.

The following specifications are submitted:

(1) Maximum speed - 44 mph

(2) Total surface area - 288 square ft

(3) Total weight - 200 lbs.

(4) Engine - A ford, overhead cam, aluminum block, 2 cylinder high reving, with a hand-cranked ignition.

(5) Materials:

Frame - high strength, double hutted aluminum tubing
Wings - same as above encased in fiberglass sheath
Propeller - oak

(6) Assembly/Disassembly time - 60 minutes

(7) Capable of carry 350 lbs.

(8) Retail price - $1500 delivered with training

(9) Delivery time - training 4 months after contract award

duplicate the specifications of the Wright Brothers aircraft.

Graphics produced by the groups ran the spectrum of professional drawings to mere scribbles. One English teacher's talent emerged and that talent was used to good effect by one NHF group, see Figure V.

Predictable lapses in continuity and detail between members of the same group working on separate parts of the proposal were evident in all groups. For example, the American Airlines group had to resolve the difference between the people writing the technical description of the plane which featured an ability to glide to a safe landing, and the working group writing the safety section which had a back up engine for emergency use. One Grumman group's technical description called for an airplane with one wing; the management section discussed a biplane. The storyboard review reveals such discrepancies. It demonstrates to the participants the interdependence of group members and the necessity to divide the labor, while maintaining lines of communication.

PRELIMINARY FINDINGS

Observations of over fifteen group writing simulations using storyboards reveals that the tool is indeed a powerful device for brainstorming and for the management of group writing. The simulation demonstrates to participants the need for leadership and for coordination. The use of a storyboard forces people to present ideas, before a group member can become too attached to an idea. In this way the tool allows agreement among group members. In an ego laden environment, such as writing, this frees rather than stiffles individual creativity in a group by developing a team atmosphere.

The storyboard review presents a graphic demonstration of redundant, tangential, and missing information. This review process allows the team to consider complex themes, main points, and graphic concepts in a relatively short time.

The simulation demonstrates how the storyboard fits into a brainstorming approach effectively, and how it incorporates what VanGundy describes as interactive brainwriting during the storyboard review.

The enmeshed qualities of the writing process, the creative aspects of critical review, and the critical aspects of creating ideas surface using the storyboarding technique. It allows for better quality ideas since the quality of ideas and the commitment to them are higher if they are written, even though writing absorbs more time than an oral exchange.

Group writing as an approach used by numerous corporations is a necessary division of labor essential to accomplishing complex writing tasks. It also potentiates individual talent. The techniques of group writing allow the individual and the group to explore the ideas before the draft is written. Storyboards also provide a powerful management tool that allows several people to review a project in detail and obtain a snapshot of the whole project within a 30 to 60 minute oral review.

FUTURE STUDY

During October, 1985, two more control groups and two additional test groups will perform the simulation. Results of these further performances are not expected to change significantly the preliminary findings that the storyboard, used by a group of professionals on a multi-part, complex task, proves to be an effective device in structured brainstorming and interactive brainwriting, and for project management.

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MINORITY MANAGERS/EXECUTIVES--THEIR PERCEPTIONS OF BUSINESS COMMUNICATION

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ABSTRACT

This presentation profiles 112 minority managers: their perceptions on the importance of business communication; patterns of career advancement; education; and a brief statement on their personal lives. Also included is comparable data on 106 minority executives, those a step above in the hierarchy of an organization, as well as opportune comparisons by sex.

Succinctly, the following generalization about the minority managers will be supported:

> They consider either oral or written business communication a preeminent means of preparing for a position in general management, are younger than their executive superiors, are well educated, and firmly recommend the Business Administration degree at both the undergraduate and graduate level.

INTRODUCTION

Methodology

Data for our analysis comes from two continuing research projects: (1) a 33 item questionnaire submitted in a timely fashion to newly promoted executives in the U.S. [1] resulting in a usable N of 6,396 over a five year period: 6,242 men and 103 women; and (2) a second 68 item questionnaire completed by managers attending management development seminars at the University of Michigan, resulting in an N of 2,411, of whom 1,825 were male and 539 were female [3; 4].

Minority managers and executives were taken from the above two research projects: 112 black managers and 106 black executives, the basis for the following conclusions. Executives are defined as limited to CEO's; Presidents; and Vice-Presidents of corporations; Managers are the managerial category just below the executive group, and the core group for the study. Unless explicitly stated, our data focuses on the managerial group.

All questionnaires for both groups were anonymous. The response rate for the executive group was precisely 40 percent and for the managers was near 90 percent.

Minority Managers Strongly Represented in Companies with Annual Gross Operating Revenue in Excess of $1 Billion

A useful way to provide additional background on the minority managers is to view their business groups. That is seen in the following list. Within those groups only 12.6 percent came from companies with gross operating revenue less than $10 million; 32.6 percent from companies between $10 million to $1 billion; and the largest group were from companies grossing over $1 billion a year, 55.8 percent. Thus, at least for this sample, minority managers are representative of the larger corporations, a fact to be borne in mind in reading the following discussion.

Two-thirds of Minority Managers Have Been With Present Employer One to Ten Years

Interestingly, most minority managers, male and female, have worked for their employer between one to ten years, with the women, overall, working a lesser number of years. It is clear that with more women in the workforce that figure should change over the years. Other categories for time with employer, follow.

Table I
Years With Present Employer

Years with Company	Total	(Female Managers)	(Male Managers)
Less than 1	2.6	9.4	4.5
1-5	30.8	40.7	33.0
6-10	34.6	15.6	28.6
11-15	14.1	12.5	13.4
16-20	10.3	9.4	10.7
21-25	3.8	12.5	6.3
26-30	1.3	--	0.9
Over 30	2.6	--	2.7
	100%	100%	100%

*Rounding will sometimes result in percentages greater or less than 100%.

Vice-Presidents the Largest Category of Minority Executives

While minority managers are not easily classified by title, executives more readily fall into the usual tripartite division of CEO, President, and Vice-President. And because there are fewer CEO's and Presidents in all industries, those categories have fewer minorities; most minorities in our sample executive category, therefore, carry the title of Vice-President. This emphasis upon minority Vice-Presidents should be kept in mind.

IMPORTANCE OF BUSINESS COMMUNICATION

Central to the discussion and with significant import for the Association of Business Communication, is this initial section stressing the support minorities give to business communication, both as managers and as executives, for either oral or written communication. The subsequent generalizations have varied little across ethnic lines since including the following question in the on-going research:

> Assuming the study of business administration best prepares a young person for a career in general management, how important are the following courses as part of that preparation.

All respondents replied by checking one of five options: very important; somewhat important; neutral; somewhat unimportant; and very unimportant.

Minority Managers Support Business Communication Courses As Most Important in Preparing for a Career in General Management

Minority managers, as firmly as any executive group studied, support the importance of business communication as preparation for a business career. One cannot discount the high 84.5 percent of minority managers indicating that communication is "Very Important." Only a slight decrease occurs when moving to the higher executive category; there 73.9 percent--still in the prime position--suggest the overwhelming importance of business communication in career preparation. (See Table II.)

Female Minority Managers Support Business Communication as Significant Preparation for a Career in General Management

When looking only at the minority females in the managerial data, they position business communication as the most recommended course in prepration for a career in general management, 85.7 percent considering that area as "Very Important." In fact, when considering 11 women in he managerial study 86.2 percent consider communication as the most important. Going one-step further, top level women executives (CEO's, Presidents, and Vice-Presidents) give communication the high ranking of 77.8 percent. The inference is that women strongly recommend business communication as the most important course in preparation for a career in general management. (See Table III.)

Table II

Minority Managers' Evaluation of Courses as Preparation for Career in General Management (Male and Female)

	Minority Managers		Total Managers		Executives	
	Mean	Very Important	Mean	Very Important	Mean	Very Important
Business Communication (oral and written)	1.15	84.5	1.13	79.0	1.33	73.9
Computer/Information Systems	1.48	59.6	1.39	56.1	1.73	41.8
Business Policy/Planning	1.49	61.8	1.55	47.8	1.75	43.5
Accounting	1.56	52.0	1.71	40.7	1.57	56.0
Personnel/Industrial Relations	1.57	50.5	1.76	38.2	2.30	17.4
Business Economics/ Public Policy	1.65	47.5	1.86	32.5	1.93	33.6
Finance	1.66	46.5	1.71	40.0	1.44	61.4
Business Law	1.73	43.0	1.96	27.5	2.21	20.4
Production/Operations	1.73	42.9	1.96	27.6	2.33	16.6
Marketing	1.73	41.7	1.77	37.2	1.84	38.0
Statistics	1.87	38.5	2.15	19.6	2.62	10.3
Advertising/ Sales Promotion	2.20	19.2	2.23	14.5	2.65	8.8
International Business	2.25	23.5	2.51	11.3	2.52	10.9

Table III

Minority Managers' Evaluation of Courses as Preparation for Career in General Management--by Sex

	Female Minority Managers		Male Minority Managers		Minority Executives	
	Mean	Very Important	Mean	Very Important	Mean	Very Important
Business Communication (oral and written)	1.14	85.7	1.16	84.0	1.20	85.7
Computer/Information Systems	1.46	57.1	1.48	60.5	1.75	39.2
Business Policy/Planning	1.50	57.7	1.48	63.2	1.67	52.0
Personnel/Industrial Relations	1.66	40.7	1.54	54.1	2.13	26.9
Marketing	1.71	39.3	1.74	42.7	1.82	35.3
Accounting	1.71	32.1	1.50	59.7	1.63	52.4
Finance	1.74	37.0	1.63	50.0	1.44	61.2
Business Economics/ Public Policy	1.78	42.9	1.60	49.3	1.90	40.8
Production/Operations	1.84	36.0	1.69	45.2	2.34	14.4
Business Law	1.96	35.7	1.63	45.8	2.09	26.9
Statistics	2.19	26.9	1.75	42.9	2.35	15.4
Advertising/ Sales Promotion	2.22	18.5	2.19	19.4	2.53	6.8
International Business	2.51	14.8	2.15	26.8	2.57	11.7

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Minority Managers in Seven Industry Classifications Support Business Communication

Research reported here used 38 industry classifications, about equally divided into non-manufacturing and manufacturing. Thus areas as advertising, public relations, banking, insurance, and retail trade would fall into the first group. Representative areas in the second include aerospace, chemical, food, paper, primary metals, and textiles. When combining all 38 industry classifications into seven global categories, business communication is at the top in all areas.

Table IV

Minority Managers' Evaluation of Business Communication as Preparation for Career in General Management--By Major Industry Groups (Percentage of Respondents Indicating "Very Important")

Industry Group	Minority Managers
Professional Services	100.0
Durable Goods, Manufacturing	88.6
Regulated Industries	81.8
Retail and Wholesale Trade	81.8
Nondurable Goods, Manufacturing	80.0
Finance, Insurance, Real Estate	75.0

CAREER PATTERNS

Accepting the generalization that minority managers and executives give much importance to communication, it is interesting to complete the profile of those minorities who help guide U.S. industry. We shall briefly focus on minority managers' careers, their education, and their personal characteristics.

16.8 Percent of the Managers Have Worked for Only One Employer

13.2 Percent Have Worked Abroad, for a Mean Number of 3.7 Years

Personnel/Industrial Relations Major Areas of Responsibility

The following five questions relate to areas of responsibility.

(1) In which major area of responsibility was your first job?

Most minority managers began in the area of Production/Operations

Production/Operations, Personnel/Industrial Relations, and Marketing/Sales were the three major areas where minority managers began their careers, 30.4 percent, 18.6 percent and 14.7 percent respectively. Lowest areas represented were Law, Research and Development, and Computer/Information Systems.

(2) In which area are you currently employed?

Most minority managers are in Personnel/Industrial Relations

Minorities are most often represented in personnel work. Indeed, their progression within a company from next to last, to last, to current position shows an increasing percentage of managers entering Personnel/Industrial Relations, 27.8 percent, 28.4 percent, 40.8 percent respectively.

(3) Where have you spent the most time?

Most minority managers spent majority of time in Personnel/Industrial Relations

Building on the preceding question, it appears obvious that minority managers will spend more time in Personnel/Industrial Relations, then comes Production/Operations (21.8 percent) and Finance/Accounting (7.7 percent).

(4) In which area is upward progress fastest?

(5) Where would you concentrate if starting over?

Minority managers suggest the fastest route to the top is the same as when starting over: Personnel/Industrial Relations

After Personnel/Industrial Relations as the fastest route to the top comes Production/Operations and Marketing/Sales; minority managers are a bit out of sync with other managers who recommend Marketing/Sales followed by Production/Operations. Minority managers feel, for them at least, that promotions come more quickly through personnel work.

If minority managers can start over, they recommend--a little less firmly--the same area of Personnel/Industrial Relations, but then suggest Marketing/Sales and Law. Surprising, 12.4 percent recommend Computer/Information Systems whereas only 5.9 percent began in that area.

An implication for ABC instructors is that more emphasis could be put on interpersonal communication skills--often demanded in personnel work--than is currently done in business communication.

Table V
Job Concentration

Major Area of Managerial Responsibility	First Job	Present Position	Most Time	Fastest Route Up	If Starting Over
Production/Operations	30.4	14.6	21.8	18.3	13.5
Marketing/Sales	13.7	11.7	7.7	17.1	14.6
Finance/Accounting/ Taxes	8.8	9.7	12.8	12.2	12.4
Personnel/Industrial Relations	18.6	40.8	35.9	31.7	22.5
Research and Development	3.9	1.9	--	1.2	3.4
Law	2.0	--	1.3	--	14.6
General Management/ Administration	6.9	9.7	9.0	13.4	6.7
Computer/Information Systems	5.9	5.8	7.7	4.9	12.4
Other	9.8	5.8	3.8	1.2	--
	100%	100%	100%	100%	100%

Annual Base Salary Prior to Current Position

Annual Base Salary in Current Position

Base salary for minority women managers, before and after promotion, suggests progress, but not as fast or as high as their male counterparts. A measure of the average salary increase for women is shown by the median salary of $25,083 before promotion and $29,900 after promotion, a rise of 19.2 percent. Also measured by the median, males' average salary increase was up by 32.7 percent. One must remember that the women managers in this study are three years younger than the male managers. Regardless, minority women are paid less than their male counterparts.

Table VI
Annual Base Salary

Minorities-- Median Salary	Female Managers	Male Managers
Before promotion	$25,083	$30,150
After promotion	29,900	40,016
Dollar increase	4,817	9,866
Percentage increase	19.2%	32.7%

Minorities-- Mean Salary	Female Managers	Male Managers
Before promotion	$25,523	$31,922
After promotion	31,990	40,732
Dollar increase	6,467	8,810
Percentage increase	25.3%	27.5%

EDUCATION

While not related to the current paper, longitudinal ten-year information prior to 1981 [2] suggests that executives each year are becoming more highly educated. Nor is it a surprise that the older executives are the CEO's and presidents, both categories having slightly less education than the younger vice-presidents who will potentially replace them. A similar trend toward increased education is evident in the managerial category.

A further comparison with the ten-year study suggests that the proportion of all executives with less than a high school education has declined from 0.6 percent (ten-year study) to 0.1 percent in the 1985 [4] executive study, and that within the past five years. The proportion for all executives with a college degree has increased from 85.5 percent (ten-year study) to 93.1 percent for males and females.

None of the minority managers in this paper had schooling below a high school education, and only 1.8 percent stopped there. In fact, all managers in our survey have at least a high school education, but as a whole 2.7 percent did not go on for further education. Over three quarters (76.6 percent) of the minority managers possess an undergraduate degree, as compared with 81.3 percent for the entire management group, an insignificant difference. If there is an emphatic conclusion it is this: higher education will continue to be a dominant characteristic of both male and female managers and executives, adding support to the proposition that business communication should play a role in preparing persons for business careers.

Business Administration, Social Science, and Science and Mathematics Most Popular Undergraduate Major for Minority Female Managers

Business Administration, Science and Mathematics, Engineering, and Education Most Popular Undergraduate Major for Minority Male Managers

Executives Major in Business Administration and Engineering at the Undergraduate Level

Minority managers' major field of undergraduate study--male and female--was Business Administration, then followed by Social Science and Science and Mathematics by the women and Social Science by the men. Executives in general also majored in Business Administration but followed that category with Engineering. Inescapable is the observation that minority managers--after the business degree--have turned to the sciences.

A higher percentage of minority managers (16.7 percent of the females) (8.8 percent of the males) majored in Education as contrasted to only 0.6 percent in the executive study.

Table VII
Undergraduate Major Field of Study

Undergraduate Major Field of Study	(Female Minority Managers)	(Male Minority Managers)	(Executives)
Social science	12.5	14.1	19.3
Science and mathematics	12.5	8.8	9.6
Humanities and liberal arts	8.3	5.2	3.4
Business administration	33.3	42.1	30.7
Behavioral science	8.3	8.7	3.4
Engineering	--	8.8	25.1
Law	--	--	0.4
Education	16.7	8.8	0.6
Other	8.4	4.5	8.2
	100%	100%	100%

Minority Managers, Male and Female, Recommend Major in Business Administration at the Undergraduate Level

Also at the undergraduate level, three-quarters of the minority managers recommend a major in Business Administration, distantly followed by Engineering by the men, and the Humanities and Liberal Arts and Engineering by the women. A similar executive recommendation for undergraduate work occurs: Business Administration, then Engineering.

Table VIII
Recommended Undergraduate Degree

Recommended Undergraduate Degree	Percentage Recommending (Female Minority Managers)	Percentage Recommending (Male Minority Managers)
Business Administration	76.2	65.5
Engineering	9.5	24.1
Humanities and Liberal Arts	9.6	1.7
Social Science	—	3.4
Science and Math	4.8	5.2
	100%	100%

Business Administration and Behavioral Science Most Popular First Graduate/professional Degree for Minority Managers

At the graduate/professional level for a first graduate/professional degree, 54.5 percent of the managers majored in business administration, similar to the executives' ranking. Clearly, managers began in business education, continuing in that area in graduate study. And if those managers attended business schools offering courses in business communication, it follows that some of them had exposure to that discipline.

Table IX
Graduate/Professional Degree

Major Fields of Study	Graduate/professional 1st degree (Minority Managers)	Graduate/professional 1st degree (Executives)
Business administration	54.5	55.9
Behavioral science	15.2	1.0
Science and mathematics	6.1	6.2
Law	6.1	17.8
Education	6.1	2.8
Social science	6.0	3.4
Engineering	--	12.5
Humanities and liberal arts	--	0.4
Other	6.0	2.8
	100%	100%

Minority Managers and Executives Overwhelmingly Recommend Business Administration Major at Graduate Level

At the graduate level both minority managers and executives unhesitatingly recommend business administration as the major course of study. The combined field of science and math was a distant second.

Table X
Recommended Graduate Degree

Recommended Graduate Degree	Percentage Recommending (Minority Managers)	Percentage Recommending (Executives)
Business Administration	65.3	79.2
Science and Math	34.7	16.9
Law	--	2.9
Engineering	--	--
	100%	100%

PERSONAL

This concluding section of minority managers focuses on personal characteristics. Nine questions in our survey questionnaire made up this section, of which we will offer only highlights.

The Median Age is 36.5

At the managerial level women are on average just less than three years younger than their male counterparts: males have a mean age of 38.5 as compared with the women's mean age of 35.9. By contrast, executives are nearly ten years older, having a mean age of 47.2.

11.8 Percent of the Managers Never Married

52.7 Percent are in Their First Marriage

10 Percent are in Their Second Marriage

Most Minority Managers are Middle-born Children

This last conclusion is in sharp contrast to executives who are first-born children (40.0 percent as opposed to only 28.4 percent of minority managers) and less than a quarter (22.7 percent) are middle children as compared to the high percentage of minority managers (45.0 percent) who are in that category.

Table XI
Order of Birth

Order of Birth	Total (Managers)	Total (Executives)
Only child	10.1	12.2
First child	28.4	40.0
Middle child	45.0	22.7
Last child	16.5	25.1
	100%	100%

Minority Managers Come Predominantly From Lower Income Homes

Over five out of ten (55.5 percent) minority managers come from lower income homes in contrast to three out of ten (30.9 percent) of executives. More executives also come from upper income homes (11.5 percent) than minority managers (2.7 percent).

Table XII
Income Level of Home

Income Level of Home	Total (Managers)	Total (Executives)
Upper income	2.7	11.5
Middle income	41.8	57.5
Lower income	55.5	30.9
	100%	100%

Parental Occupations of Minority Managers Represented in Manual Labor Areas

While this paper is not a sociological study, it must be noted that more than half of the minority managers considered their mothers as homemakers (54.2 percent). Those mothers who worked outside the home were in less professional jobs such as laborers (13.1 percent) and office and clerical positions (12.1 percent). Fathers too were in less professional positions as laborers (28.7 percent) and operatives (11.1 percent). Those figures are in vivid contrast to executives where nearly one-third (31.2 percent) of the parents were officials and managers and a high 18.8 percent were professionals. Minority managers began their careers from more humble beginnings than their executive counterparts.

Table XIII
Predominant Occupation of Parents

Predominant Occupation	Total Minority Managers		Total Executives	
	Mother	Father	Mother	Father
Homemaker	54.2	--	80.9	0.1
Officials and Managers	0.9	8.3	1.3	31.2
Professional	5.6	13.9	4.9	18.8
Technician	3.7	0.9	0.5	3.2
Sales	2.8	2.8	1.2	10.9
Office and Clerical	12.1	0.9	6.1	4.1
Skilled Crafts	1.9	17.6	0.7	10.7
Operative	1.9	11.1	0.6	3.6
Laborer	13.1	28.7	0.9	7.6
Service Worker	--	5.6	2.4	4.3
Farmer	--	7.4	0.3	4.1
Other	--	1.9	--	0.5
	100%	100%	100%	100%

Minority Managers Feel Unemployment Major Economic Problem Today and in Three Years

For minority managers the dominant concern today and in three years is unemployment, agreeing further on inflation as number two and high interest rates as number three; that in contrast to executives who today feel an unbalanced budget is primary and global competition will be the economic issue within three years.

Complete data for the other categories follow:

Table XIV
Serious Problems in Economy Today

Serious Problems in Economy Today	Percentage of Minority Managers Listing Issues as 1 of 3 Major Concerns	Percentage of Executives Listing Issues as 1 of 3 Major Concerns
Unemployment	70.5	1.1
Inflation	45.0	14.7
High Interest Rates	37.2	42.6
Low Productivity	36.2	50.7
Global Competition	32.3	10.1
Unbalanced budget	27.4	70.6
Employee Unrest	16.6	4.6
Government Intervention	11.7	17.7
Consumer Confidence	--	1.7

Table XV
Serious Problems in Economy 3 Years from Now

Serious Problems in Economy 3 years from now	Percentage of Minority Managers Listing Issues as 1 of 3 Major Concerns	Percentage of Executives Listing Issues as 1 of 3 Major Concerns
Unemployment	53.4	37.7
Inflation	45.4	45.2
High interest rates	40.9	33.9
Global Competition	38.6	66.8
Unbalanced budget	31.8	59.5
Employee Unrest	23.8	10.6
Consumer Confidence	20.4	13.7
Government Intervention	19.3	34.5
Low Productivity	14.7	35.4

CONCLUSION--A COMPOSITE PROFILE OF THE MINORITY MANAGER

So who are these minority managers who recommend that communication deserves major emphasis in attaining positions of leadership in American industry?

It is business communication--communication in either the oral or written medium--which receives their endorsement, consistently across the seven major business groups making up the study. Minority managers, male and female, give a higher percentage to business communication than their executive superiors, the former indicating eight out of ten times such support and the latter just slightly below that figure.

Female managers, and their female executive counterparts, consistently give business communication as their first choice as preparation for a career in general management.

Production/Operations is where most minority managers began their careers. Then their career progression was primarily through the functional area of Personnel/Industrial Relations, with little deviation from that area through second to last, to last, to their current position. Instructors who work in that area know the importance of business communication, both oral and written, as the media for dealing with the attendant interpersonal communication problems.

None of the minority managers held less than a high school education with over three-quarters of them possessing an undergraduate degree, most often in the field of Business Administration. One could infer that with their earned degree some exposure to business communication may have occurred.

Their own degree background influences the advice given to students now in school: get both an undergraduate and graduate degree in business administration.

Minority managers are relatively young--the median age is 36.5--are married, are most often middle children in a family, are offspring of a lower income home, and are children of parents who worked in less professional areas. One can say that they came from quite humble beginnings.

Finally, unemployment is the major economic issue on their minds today and as a potential issue three years from now, followed in both instances by inflation fears and a concern over high interest rates.

If there is a final admonition to members of ABC, it is that they give major effort to encouraging minority students to take classes in business communication, then helping them, and others, to communicate with a high level of clarity within school and as preparation for their business future.

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PART IV
CURRICULUM IMPLICATIONS

COLLABORATIVE LEARNING IN THE BUSINESS WRITING CLASSROOM

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ABSTRACT

Collaboration is often used by members of the business community to accomplish their professional objectives, including ones involving writing. For this reason, collaborative learning activities should be included in the Business Writing curriculum. Collaborative activities represent an effective and efficient tool for teaching writing and they may be included at any stage of the writing process, pre-drafting, drafting, or revising. Because Business Writing students frequently lack important skills to revise their writing, collaboration in the form of critiquing classmates' drafts is an especially effective pedagogical technique. Two collaborative revising strategies are highlighted, the small-group triadic peer-review method and the large-group seminar method.

INTRODUCTION

Because collaboration is fundamental to the success of working professionals in the business world, Business Writing instructors should give high priority to engaging their students in collaborative learning activities. Generally, a collaborative learning activity is any pedagogical strategy which involves students in cooperating with one another. In the Business Writing classroom, specifically, such cooperation can occur at any stage of the writing process for any assignment: it can consist of students actually writing something together, but more often it entails students *responding* to one another's writing and ideas, using "peer review" techniques.

What better way to teach the mainspring of all business communication--the principle of adaptation--than to have students respond to one another's writing using assorted adaptive behaviors to convey their messages to their various recipients? What better way to prepare students for the "real world"--where it is the norm for professionals in business to form collegial groups when they are writing something important--than to have students form themselves into a group of pre-professional practicing writers? For instructors (especially those who may be faced with increasingly large and diverse classes), collaborative learning activities represent a powerful tool to individualize instruction in accomplishing the objectives of the Business Writing curriculum.

This paper will address how collaborative activities can prepare Business students to do the writing expected of them as university-educated professionals in the business community. It will emphasize revision, that stage of the writing process to which the Business Communication curriculum has reportedly paid insufficient attention [42].

GENERAL PHILOSOPHY OF COLLABORATIVE LEARNING

Using collaborative activities has become an established teaching practice in many university writing curricula [30]. Particularly since the "process approach" to composition instruction has shifted the attention of our composition colleagues in English departments away from just the completed written product and toward the processes that writers use to create those products, collaborative activities have been a mainstay of the contemporary paradigm of writing instruction [6]. The guiding force behind collaborative learning is _the development of a sense of community_. As Bruffee, one of the earliest exponents of collaborative learning, has written:

> The first steps to learning to think better . . . are learning to converse better and learning to establish and maintain the sorts of social context, the sorts of community life, that foster the sorts of conversation members of the community value. . . . [one of the main goals of collaborative learning is] to provide a context in which students can practice and master the normal discourse exercised in established knowledge communities in the academic world and in business, government, and the professions [7, pp. 640, 644].

A review of the literature on collaboration in the writing classroom reveals important underlying assumptions that help to define it as a viable teaching/learning strategy. While none of these assumptions has business writing as its particular point of reference, it takes no great imagination to see how readily applicable these tenets are to the business writing context. These tenets, garnered from a review of work primarily in Expository Writing, are as follows:

Tenets of Collaborative Learning

1. The responsibility for education belongs to both the instructor and the student. No longer is the instructor the exclusive source of information; rather, students too participate in creating knowledge. "Sharing control" is a hallmark of collaborative learning, and for that reason it is characterized as a "participatory" method, keeping students active and involved [24; 32]. In this way, therefore, collaborative activities help to foster individualized learning experiences [37].

2. The transfer-of-learning principle facilitates students' improving their own writing skills as they respond to and coach their classmates' writing [20]. In helping their peers to improve as writers, students experience growth in their own writing skills. Reading and editing skills naturally nourish composing skills.

3. Collaborative activities produce emotional benefits which are conducive to intellectual growth. Collaborative group work creates what scholars call emotional flow, reducing students' sense of powerlessness, isolation, and "linguistic insecurity," creating the affective conditions for optimum intellectual activity [20; 11; 28].

4. Collaborative learning naturally takes advantage of the power of peer influence. Students sometimes mistrust feedback from their instructors, assuming that it is some age difference--not a writing difficulty--that prevents communication. Collaborating peers disabuse one another of this notion. In addition, students develop strong bonds when they work together, and in becoming accountable to one another they perform academic tasks conscientiously and rigorously.

5. Collaborative activities enrich the composing process by expanding the kind and scope of feedback that students receive on their writing. Collaboration allows for a wider range of feedback than the traditional teacher-only response permits, and it is offered at timely moments in the writing process. As one scholar has commented:

> The basic premise behind the use of small groups is that to provide a student writer with a sense of audience, he must receive audience reactions _while engaged_ in the process of writing, not at the end, when handed in, days have gone by, and the piece is handed back, minutely evaluated by the teacher [26, p. 1].

6. Collaborative activities approximate the conditions of nonacademic writing, where professionals must work together. In this way they advance the maturation from pre-professional to fully professional, helping students to master the kinds of reading, writing, and editing used in the business community.

7. Collaborative learning--likely as a cumulative effect of all of the above characteristics--promotes higher levels of cognitive activities in students [32]. Students who may initially see the world in simplistic terms may be prompted, by the diversity of their peers' outlooks, to grow into more accurately complex understandings that characterize mature intellectual processes and to integrate generalizations and particulars in their writing [5; 34].

Teaching Implications

All of these tenets, then, help to explain why collaborative activities represent a successful alternative to traditional methods of teaching writing. Furthermore, research in composition pedagogy gives additional evidence for incorporating collaborative activities into the Business Writing classroom. In his comprehensive review of 500 experimental studies investigating the teaching of writing, Hillocks found that methodologies which stressed focused collaborative activities were _the most effective ones_ for improving students' writing [27]. In Business Communication, Bell's work corroborates the benefits to students' writing skills delivered by a pedagogical technique that includes collaborative activities [1]. To be involved in collaborative learning of this sort, then, is to be engaged in learning to write, learning to respond to writing, and learning to collaborate; each of these is a kind of learning that is invaluable for future members of the business community [2].

In some cases, how students learn may also constitute what they learn: collaborative activities naturally make possible the realization of what Lesikar, one of Business Communication's preeminent scholar-practitioners, calls the philosophy of business communication, "Communicate to communicate [33, p. 4]." Through collaborative activities, students acquire both a new repertoire of writing skills and a trial-membership in the community where those skills will be used [9]. Collaborative activities have the potential to enhance the development of competencies necessary in the world of business--critical thinking skills, writing and editing skills, responding skills, and human relations skills.

APPLICATIONS TO THE WRITING PROCESS

The writing process is typically conceived as having three primary subprocesses--pre-drafting, drafting, and revising. Each of these subprocesses is a cluster of cognitive-linguistic activities that writers employ as they compose any written document. These subprocesses are not stages, but are bundles of behaviors that apply recursively throughout the writing process. (In revising, for instance, elements of pre-drafting will resurface: answers to questions like "Should I change this to make my style more forceful/personal/colorful/active, etc?" will come from information that has been generated in pre-drafting [16].)

In teaching contexts, however, these processes do take on stage-like qualities, for a course syllabus imposes order and linearity and a class schedule necessarily places one learning activity before another. Collaborative activities can benefit student-writers at any stage of the writing process, as long as they are engaged in sharing their writing and their ideas with a responsive audience which extends beyond a teacher-evaluator. As one researcher has noted:

> . . . students who receive feedback from peers as they move through the subprocesses of composing have a number of advantages: they will experience writing and revising for less threatening audiences than the teacher . . . and they will learn to discriminate between useful and non-useful feedback and to use their awareness of anticipated audience response as they revise. A peer audience, then, can help writers to learn and to negotiate a way between their readers' suggestions and their own imperatives [3, p. 312].

At any stage of the writing process, collaborative activities have three virtues: they help students to understand when their writing succeeds and when it fails, they help students to establish a greater commitment to writing, and, by providing many respondents, they create a context for writing that typifies written communication in the real world [41].

Applications to Pre-Drafting

At the pre-drafting stage, all writers identify, assess, and delimit the scope, audience, and purpose of what they are writing. In an academic setting, student-writers must grapple with the rhetorical demands of the assignment that they have been given. They must be coaxed to make preliminary decisions regarding the breadth of their subject matter, their intentions, and their readership, engaging in discovery procedures which classical rhetoric calls "invention."

There are many kinds of collaborative activities that can be used at this stage of the writing process. As has been reported elsewhere, a talk-write methodology, which has Business Writing students pair up to converse with one another about their plans for their assignments, delivers consistently positive benefits to the quality, expression, and development of written ideas [36]. Students may also work together in role-playing situations, where one student imagines himself to be the prospective reader of another's (as yet unwritten) document, generating questions that may help the writer to define her topic in a way that achieves audience adaptation from the very beginning of the writing process. Students may also form small groups to brainstorm ideas, to collaborate in creating shared understandings of the rhetorical contexts in which they are all operating (for example, in exploring the multiple purposes of a particular document that they are preparing). Classmates may also exchange and comment on any tentative jottings they have prepared in getting their assignments launched, such as lists of ideas, rough outlines, or sketchy descriptions of their readers.

While working professionals who write on the job *do* have a sense of their audiences and purposes, our students frequently lack such awareness; collaborative learning activities at the pre-drafting stage can help to raise their rhetorical consciousnesses early on in the writing process.

Applications to Drafting

At the drafting stage, writers are writing: at the micro-level, they are concerned with tasks such as choosing words and constructing sentences; at the macro-level, they are involved with more global concerns, like organizing and formatting larger chunks of discourse. Just as they often have multiple readerships, professionally-authored documents sometimes have multiple authorships. Students may jointly author a piece of writing to experience the process of that kind of collaborative writing.

A writing class may be divided into small groups of several students apiece, with each group assigned to produce one collectively-written document. The 4-5 student group-members must work together to create the document, making decisions about the division of labor, who will do what writing task and when. Apart from the initial group meeting, no class time needs to be devoted to collaborative drafting, for this writing should be produced outside of class (just as it would be if it were being prepared by individuals). Probably the most effective way to evaluate each assignment is to give a common "group project" grade to all of the members of the same group. Although this may not be entirely fair--inevitably, some group members contribute more than others--this procedure parallels professional settings where writing responsibilities are shared (thus teaching students something valuable in addition to writing skills).

Smaller assignments--writing an abstract for an article that everyone has read or preparing a brief memorandum relating to a particular case study--are also means for engaging students in collaborative drafting, should the instructor wish to avoid the greater demands created by larger assignments. In addition, students may use collaborative drafting to create parts of larger documents, such as a section of a brief report or a letter-of-transmittal component of a formal report project. It is not imperative that such documents be completed; rather, what matters is that students work together in the actual labor of crafting their prose, sampling the kind of collegial behavior that will be expected of them in the professional world.

Applications to Revising

It is aphoristic that good writing is good rewriting. At the revising stage, writers review and evaluate their work, changing and editing it. They tinker with it at all levels, adding and taking away marks of punctuation, words, sentences, paragraphs, pages, a piece of discourse of any size. Effective revising means arduous re-seeing, and in Business Communication, where an author must so often assume the vantage point of a reader different from oneself, that kind of re-seeing, and the willingness and ability to make textual changes in light of that re-seeing, are essential to professional success. Professional writers revise their writing all of the time, trying to increase the probability that it will accomplish the goals it is designed to meet once its readers have received it.

Student-writers, as a rule, have difficulty revising. For many of them, the process is associated with punishment, for they fail to comprehend that the process involves far more than proofreading and mechanically applying spelling and grammar rules in order to fix red-inked errors. Inexperienced writers (like most of our Business Writing students) often falsely believe that good writers "get it right the first time," failing to understand that it is precisely their expertise at revising that makes expert writers expert. Since they subscribe to the mythology of the perfect first-draft, most undergraduate writers are not able to make significant kinds of revisions in their writing until they have been taught how to.

It is at the stage of revision that collaborative activities can enjoy their greatest impact. Feedback on a draft-in-progress can advise a weak student about what is jeopardizing an assignment's effectiveness, giving her a chance to learn constructively from her mistakes. And it can encourage a strong student to improve an already able draft, giving her positive reinforcement for a job well done. As leading composition theorists have written:

> The value of feedback from a reader as an aid to a writer's matching her text with her intentions cannot be overemphasized. . . . *The most helpful kind of feedback for any piece of writing must be given before the writer considers it to be finished* [italics mine, 35, p. 7].

Because revision is so central to the writing process, and because it resides at the core of effective professional writing in Business, the remainder of this paper will address how collaborative peer-review editing techniques may be incorporated into the Business Writing classroom. It will address two particular methods of peer-critique: first, the small-group triadic approach, in which students respond to certain salient primary traits of their classmates' drafts during one class period; and second, the larger-group seminar approach, in which students participate in an extensive and elaborately articulated review of a number of features in their classmates' drafts during several class meetings.

It was recently argued in *The ABCA Bulletin* that "Training in rewriting has not been given enough attention in most of our classrooms" [42, p. 33]. The teaching methods described in the following pages should help to rectify that problem.

THE TRADITION OF USING PEER-EDITING AT THE COLLEGE LEVEL TO FOSTER THE PROCESSES OF REVISION

The tradition of institutionalizing collaborative activities at the stage of revision, in which students act as editors to critique one another's drafts, may be traced to three sources, each of which has its roots in the teaching of Freshman Composition. At first, these activities had as their sole goal to help students write for some "real world" audience. So often, students wrote in such an a-rhetorical vacuum (i.e., for instructor's eyes only), that their writing skills suffered from entropy and were only marginally improved by instruction. Once implemented, collaborative editing was deemed a successful time-saving teaching technique, helping instructors to use their time efficiently as they themselves responded to students' writing [23]. Finally, peer-review editing has been shown to deliver a multiplicity of benefits to students' linguistic skills, not just their writing skills, but their editing skills, their reading skills, and their responding skills too. Paradoxically, even weak writers whose prose is fraught with error may perform competently in the role of editor, perceiving in others' pieces of writing the weaknesses that they overlook in their own (even when they are not the designated reader for a particular document, which is usually the case in Business Writing).

Peer-editing requires students to engage in sophisticated critical reading skills, assessing and responding to writing. Because their peers' writing may be incoherent and unfocused, student editors must also sometimes exercise interpretive inferential skills, reading between the lines to understand the message and the intention of the prose before them [19]. Peer editors must also use critical empathy skills, exercising hypothetical reasoning to transcend their individual egos and to place themselves in the position of the intended reader, responding *as if* they were that reader. As members of a response group, peer-editors must interact in a potentially threatening social situation, developing effective oral communication skills as they listen openly and seriously to one another [21]. For these reasons, then, much learning results as a consequence of the peer-review editing process.

Applications to Non-Business Writing Courses

The recent literature in composition pedagogy includes a number of reports on the successful use of peer-review editing techniques in college writing courses. Most often, these reports come from Freshman English, where many instructor-researchers detail a "workshop" approach to teaching writing which relies heavily on students' giving one another written feedback on their drafts-in-progress.

All report the many benefits of peer-editing, be they for the more cogent support of argumentative propositions in persuasive expository writing, for students' perceptions of their own improvement in writing, or for specific growth in the areas of rhetorical awareness, development of ideas, organization, stylistic control, or mechanical correctness, etc. [2; 10; 20; 22; 23; 24; 29; 34; 45; 50].

For the writing of students enrolled in composition courses beyond the freshman level, peer-review techniques have also been reported to deliver positive results. In advanced expository writing courses, for instance, such techniques have reportedly helped to improve the quality of students' essays [13; 14; 44]. And in an advanced journalism course, one instructor writes enthusiastically of the diverse and "massive qualitative" feedback that classmates provide for one another through peer-editing [4].

Applications to Courses in Other Disciplines

Even in college courses where writing is not the essential subject matter, peer-review techniques have been effectively utilized. One researcher, for example, speaks of the benefits of the technique when sophomore biology majors exchange their lab reports; another details how students in a geography course profit from critiquing one another's drafts of research proposals and prospectuses [18; 8]. Yet another researcher writes about students in an American Colonial Social History course exchanging papers, improving writing skills and learning history at the same time [47]. In "content area" courses as well, then, collaborative peer-critiquing has been implemented successfully.

Applications to Technical Writing and Business Writing Courses

In Technical Writing (probably Business Writing's closest academic cousin), favorable reports have also appeared about collaborative peer-editing [46]. The peer-review method has been credited with helping business and technical writing students to emphasize their subject matter successfully, to organize their material logically, and to manipulate their style skillfully [43]. In one business communication class, an instructor who uses a small-group collaborative approach (including peer-evaluation of drafts) reports that over 75 percent of her students evaluate such an approach as being superior to the more traditional lecture method [49]. Peer-review activities, then, have consistently been shown to be a boon to students' writing and revising skills.

STRUCTURING PEER-CRITIQUING ACTIVITIES

There is a diversity of opinion about how peer-review activities may best be set up in writing classrooms. Two chief variables are under examination: the *degree of specificity of the criteria* that students should employ in responding to one another's writing and the *size* of the response group.

Designing Criteria for Response

Some instructors subscribe to the "less-is-more" philosophy, thinking that no specific criteria need to be provided by instructors when students are asked to critique one another's drafts, reasoning that less overt didacticism results in greater student involvement. These instructors believe that student responses should be relatively free-flowing, unconstrained by an authority figure's criteria. Under these conditions, students generate their own criteria and develop their own standards for responding to their classmates' writing.

On the other hand, most research indicates that an instructor's structured questions *improve* the quality of students' collaboration at this stage of the writing process. Without structure, it is thought, students may simply not know what to look for in one another's papers, drawing blanks or evaluating criteria that are not directly related to the instructor's (and, presumably, the professional community's) criteria. Students and instructors, it has been argued, may initially constitute "distinct evaluative communities" [38; 39, p. 309]. If that is in fact true, because one of the goals of collaborative learning is to provide students with an entree into the professional community (of which the instructor is a representative), it is all the more important for instructors to articulate the standards that they want students to apply to one another's writing. In Business Writing, then, it is best that students be provided with instructor-created criteria and that these criteria be formulated in ways to guarantee that students are responding to discourse features which they have the expertise to respond to. If students are let loose in their classmates' writing, uninstructed and unguided, there is no reason to feel confident that they will find their way clear to composing meaningful responses that will help one another [41, 17].

The more specific such criteria are, the better, for vague criteria do not fully draw out students' evaluations of their peers' drafts. One Business Communication teacher who uses the peer-review technique without clearly-focused peer-review questions reports students' providing one another feedback such as "The report is very jumpy. It needs better transitions between ideas" [42, p. 35]. While this kind of remark is helpful, it sounds more like the kernel of a piece of advice, not a fully-developed response. Without concrete questions to focus them, then, most students are rarely able to expand and extend their comments in ways their peers need in order to proceed confidently with their revision processes.

Determining Group Size

As for optimal group size, there is also a variety of opinion. Peer-response groups have reportedly ranged from two to six members. There is probably no one "best" size for an editing group. I have found that two different arrangements--a small group of three, and a larger group of eight to ten members--both create excellent conditions for student-writers to respond to one another's work.

Choosing the Right Time

The one teaching variable about which there is consistency is timing: peer-review should be undertaken for a (rough) draft-in-progress. The procedure is simple: students bring their drafts to class, exchange them and receive (and give) feedback, and then return home with their drafts, which they will revise into their finished documents. Part of this feedback may include instructors' comments. The techniques described below involve rough drafts first being critiqued by classmates and then by the instructor. Such input from the instructor may not always be necessary, however, especially in light of the research that indicates that a course in information business writing can be taught effectively with fewer instructor-reviewed papers than are traditionally expected [48].

THE PEER-REVIEW TRIAD

The peer-review triad method involves having students form themselves into collaborative editing groups of three members, during one class meeting. During this session, each student assumes three roles: he will be an "Author," who exchanges his paper with two other classmates; he will be "Editor One," who answers one set of questions about the draft of one of his group members; and he will be "Editor Two," who answers another set of questions about the draft of the other person in his group. With its rotating roles format, then, the peer-review triad method permits each group member to give and receive feedback from two classmates. This is accomplished by a simple exchange of papers, described below.

Procedures

There are three people in Group One, persons A, B, and C.

1. They exchange papers for the first time, when each person in the group acts as "Editor One" for the paper he receives:
   Person A will respond to Person C's paper;
   Person B will respond to Person A's paper;

Person C will respond to Person B's paper.
Responses will be written answers to the dittoed questions provided by the instructor, labelled "Questions for Editor One."

2. After half of the class period expires, a second exchange of papers occurs, and each person in the group acts as "Editor Two" for the paper he receives:

Person A will respond to Person B's paper;
Person B will respond to Person C's paper;
Person C will respond to Person A's paper.

These responses will be written answers to the dittoed questions provided by the instructor, labelled "Questions for Editor Two."

3. Five minutes before the class period ends, papers should be returned to their authors so that they can quickly review the feedback they have received. If the instructor also wishes to collect this draft, she may do so at the end of this session, asking that the peer-review sheets be attached so that she may comment in light of them. If the instructor does not wish to collect this draft, students take everything home immediately. When the final draft is collected, however, it serves the instructor well to collect the whole set of materials--the rough draft that was shared with classmates, the peer-review editorial sheets, and the finished assignment--so that she may see the genesis of the written product and the processes used by students to create it, thus better equipping herself to plan instruction for the next writing project.

Criteria

A sample of the kinds of questions that may reasonably be asked in one class period (approximately one hour) appears on the following two pages of student handouts, "Questions to Be Used in Peer-Review Triads." The questions are very closely wedded to the assignment (one on writing a letter of application for employment and a resume; the assignment and its context are reproduced at the top of the first page). The information needed to answer these questions has been covered in class discussions and readings before the peer-review session. Hence, when Editor One evaluates whether or not previous jobs are described operationally (question 6), he knows well what operational job descriptions are, and when Editor Two evaluates parallelism (question 4), he understands how it functions and why it matters. To allow student-writers as much feedback as possible, it is important to give the two editors two different sets of questions to respond to. The only shared questions in this sample, for instance, are the last two--what the student-editor likes best about the draft and what one recommendation he would suggest to improve it.

The peer-review triad gives students plentiful feedback almost immediately. In addition, by reading two other drafts, students are exposed to new ideas and strategies that they may adopt as they revise their own work. For a one-session enterprise, the triadic peer-review method generates much useful information, gives students useful practice in responding to their peers' writing, and gets them launched on the processes of revision.

QUESTIONS TO BE USED IN PEER-REVIEW TRIADS
(STUDENT HANDOUT)

The Assignment:

Assume that you are graduating this semester and are looking for a job. Find an advertisement for a job for which you would be qualified. Then write a letter of application and a job-specific resume for this advertised position. For class purposes, clip the advertisement to your letter.

(comes after reading and discussion of appropriate material, e.g., "Strategy in Job Application," Ch. 9 in Lesikar)

Questions for Editor One:

1) How effective is the opening of the letter in grabbing the reader's attention? What technique(s) has the author used? Can you suggest others that might be more effective?

2) What qualifications does the author highlight in the letter? Given the job advertisement, comment on how effectively qualifications have been presented.

3) How appealing to the eye is the letter? On a scale of 1 to 10, rate it and suggest how the author can make it into a 10.

4) How appealing to the eye is the resume? On a scale of 1 to 10, rate it and suggest how the author can make it into a 10.

5) On the resume, do the descriptions of previous job experiences have the required details? If "yes," indicate what these are; if "no," indicate what is missing.

6) On the resume, have the duties of previous jobs all been described operationally? If "yes," give one example; if "no," show the author how to write an operational description for one of the jobs (s)he lists.

7) What do you like best about this letter of application/resume?

8) What one recommendation would you make to improve this letter of application/resume?

Questions for Editor Two:

1) How many paragraphs make up the letter? Does this seem like too few, too many, or just the right number? Why?

Student Handout on Questions to be Used in Peer-Review Triad (continued)

2) Circle all of the Is in the letter. How many of them are there? Does this seem like too few, too many, or just the right number? Why?

3) What call for action does the author make in the close of the letter? What specific action words are used? Comment on the effectiveness of the close.

4) Has parallelism been consistently used throughout the resume? If "yes," give one example of equal-level parallelism; if "no," indicate all parts where parallelism is needed.

5) Is there any information on the resume that you believe should be omitted? If so, explain.

6) Are captions "topic" or "talking"? Given the job advertisement, do these seem as effective as they could be, or might they be made better? Explain.

7) What do you like best about this letter of application/resume?

8) What one recommendation would you make to improve this letter of application/resume?

THE SEMINAR METHOD

With its rotating roles and its close consideration of specific criteria that are integrally related to the goals of a specific writing assignment, the seminar method of peer-review draws on some of the same principles as the triadic method. Seminars differ from triads, however, in several important ways. First, they are bigger: eight to ten is the optimal number of students. Second, they last longer: approximately six days are needed (five to function and one to get set up). Third, they are more extensive: more criteria are responded to more fully. Fourth, they involve more communication among students: students not only write about their classmates' drafts, but they talk about them too. And fifth, because they are a grander enterprise, seminars require a battery of materials to implement (though once started, they are self-propelling). Seminars, then, give students intensive and ongoing practice in responding to their classmates' drafts, creating a particularly rigorous regimen for peer-review. They help to develop nearly all of the communicative competencies required of working professionals in the business community.

Setting up the Seminar Group: Distributing Student Handouts

The following nine pages of student handouts specify the requirements and the strategies of the seminar method. (These materials are self-explanatory, but interested readers are invited to contact the author for further details or clarification.) To illustrate how this method works, a hypothetical Business Writing class working on a hypothetical assignment will be used as an example.

Because the seminar method is such a fully developed method of peer review, it is best used with a large writing assignment which merits sustained close attention. In this example, students have been working on a formal report of an analysis of alternatives with recommendation. (The particular assignment is reproduced at the top of the student handout entitled "Traits to be Used in the Ten-Student Seminar Group.") Students have nearly completed their rough drafts, and a new week has just started. Here is what happens:

1. On Monday, students are told that they must complete their drafts and bring the original and ten copies (for instructor and nine members of their seminar group) to class on Wednesday. They are given four handouts, "The Seminar Method," "Responsibilities of a Seminar Group Member," "The Seminar Worksheet," and "Responsibilities of the Discussion Leader," which they are asked to read for Wednesday.

2. On Wednesday, students bring copies of their drafts to class and the instructor provides an explanation of the seminar method, based on the handouts that students received on Monday. Two additional handouts are distributed and explained in class, "The Seminar Schedule" and "Traits to be Used in the Ten-Student Seminar Group." Students are then assigned to their specific seminar groups and give fellow group members (and instructor) a copy of their draft.

THE SEMINAR METHOD
(STUDENT HANDOUT)

The seminar method of paper writing/paper reading is a method that involves cooperation among an informed, conscientious, and sharing group of people. It enables each member of a seminar group to receive an abundant amount of individualized attention on a paper that he or she is in the process of writing. This close attention, it is hoped, will help you to create a polished piece of writing that you will be very satisfied with and that others will take pride in having helped you to produce.

The seminar method also enables each group member to hone his or her editorial skills. By helping other people to write well, you sharpen your own writing skills, so that you too may benefit from the advice you give.

In short, the seminar method is what writing is all about: making ourselves understood to others who wish to understand us.

Thank you for your cooperation. Good luck!

Writing to be Submitted for a Seminar Assignment

To Me:

1) Rough draft of your assignment;
2) Finished draft of your assignment accompanied by:
    a) your Discussion Leader's critique;
    b) your seminar group members' worksheets.

To Discussion Leaders:

1) Seminar Worksheets on your assigned traits for each paper.

To the Author of the Paper for which you are Discussion Leader:

1) A Critique.

RESPONSIBILITIES OF A SEMINAR GROUP MEMBER
(STUDENT HANDOUT)

As a seminar group member, you will look carefully at a specific, assigned trait for a paper and prepare a brief Seminar Worksheet on it (see following page). Your worksheet comments should help to increase the author's awareness of his/her strengths and weaknesses as you share them first as the basis for your brief oral report and then as a permanent written record of your response to what the author has written. Specifically, your task includes the following:

1) Carefully read each paper to be discussed.

2) Carefully review your specific assigned trait, which will change for each paper.

3) Give an oral report lasting 2½ to 3 minutes. Begin your report by stating the trait that you are discussing. Then give a general statement that summarizes and describes your findings.

4) Continue your report by providing concrete support for your statements. Refer to specific examples in the paper. Know precisely to what features you are referring, citing specific pages, paragraphs, sentences, etc.

5) End your report with specific recommendations.

6) As you prepare your worksheet on your trait, also review the paper for the other traits, in case you wish to add anything to the discussion about them.

7) Prepare a Seminar Worksheet (on your trait) and turn it in to your Discussion Leader at the end of the discussion. Your perception and discussion will form the basis for the Discussion Leader's critique of the paper.

THE SEMINAR WORKSHEET
(STUDENT HANDOUT)

Writing your seminar worksheets can be an exercise in aggressive assault or an experiment in passive pussyfooting. The first will alienate and discourage the author; the second will give too little information to be of any help. You must, instead, give an assertive assessment of the writing you have read. Prepare your seminar worksheets before your group meets so that you will be well prepared to participate in the discussion.

Your comments will be directed to the author of the paper that you're reading. You, as writer of the seminar worksheet, must encourage the author, making him or her see the strengths of what has been written. But you must also indicate the weaknesses which reduce the paper's effectiveness. Watch your tone very carefully: a tone of condescension can be as offensive as one of abuse. Write in your most effective "You-Attitude" style, for the major purpose of your worksheet is to make the writer see your points and to accept your assessment.

Your assessment should derive from your close analysis of the paper. Your seminar worksheet (and oral report) should include the following three areas of comment:

***Strengths: Focus on that aspect (of the specific trait that you are reading for) which is best handled by the paper. By "focus" I mean not merely citing that such-and-such is "well-done," but a brief description of how and why such-and-such is well-done, giving examples. In short, this means explaining what this trait's strongest asset is.

***Weaknesses: Focus on that aspect (of your specific trait) which is most responsible for undercutting the paper's effectiveness. Tie this to an explanation of how this weakness works against the overall impact of the paper. Smaller weaknesses should also be mentioned and explained, though not in as much detail.

***Overview: Weigh the strengths and the weaknesses (of your specific trait) and determine which carries more force. Is this trait weak, with a few strengths, or strong, with a few weaknesses? Give at least two concrete suggestions for improving the weak areas.

At the top of your seminar worksheet, include the following information:

1) Your Name
2) Your Trait
3) Name of Discussion Leader
4) Name of Paper's Author
5) Date of Discussion

RESPONSIBILITIES OF THE DISCUSSION LEADER
(STUDENT HANDOUT)

As Discussion Leader, you are responsible for leading the discussion of one paper and preparing a written critique of that paper. Specifically, your role includes the following tasks:

1) Prior to the discussion, carefully consider each of the assigned traits so that you know this paper inside-out. You must be able to speak about each trait, though you will probably not have to.

2) On the day of the discussion, begin with a few introductory remarks (not a summary!) including an identification of the author and the subject of the paper. Start the oral reports by calling on the group member who has trait #1.

3) Hurry those who take too long by requesting a summary of important points. Time is limited, so interrupt if a report goes beyond three minutes.

4) Be open-minded to other points of view. If, however, a report has been inaccurate, let it be known that you disagree with it. For example, if someone criticizes the organization of a paper, missing what you perceive as an effective organizational pattern, tactfully say so.

5) If someone is absent, give his or her oral report.

6) At the end of all the oral reports, summarize the strengths and weaknesses of the paper. Then collect all of the seminar worksheets.

7) Based on these worksheets, your own notes, and the group discussion, prepare a critique in which you evaluate the paper for which you were discussion leader. Your audience is the author of the paper. You must establish yourself as intelligent, perceptive, and considerate--someone the author will want to listen to and believe. This credibility is the ultimate goal of your critique. Your critique of the paper must indicate its strengths, weaknesses, and an overall impression Encourage the author, but be honest. Some place in your critique, assign the paper a grade. Within two days, give your critique and all of the seminar worksheets to the author.

THE SEMINAR SCHEDULE
(STUDENT HANDOUT)

Seminar Group A , Meets M-W-F, 10:00 A.M.

PAPER → / PARTICIPANTS ↓	<-11/4->		<-11/6->		<-11/8->		<-11/11->		<-11/13->	
	A	B	C	D	E	F	G	H	I	J
A	--	8	7	6	5	4	3	2	1	DL
B	DL	--	8	7	6	5	4	3	2	1
C	1	DL	--	8	7	6	5	4	3	2
D	2	1	DL	--	8	7	6	5	4	3
E	3	2	1	DL	--	8	7	6	5	4
F	4	3	2	1	DL	--	8	7	6	5
G	5	4	3	2	1	DL	--	8	7	6
H	6	5	4	3	2	1	DL	--	8	7
I	7	6	5	4	3	2	1	DL	--	8
J	8	7	6	5	4	3	2	1	DL	--

A = Martha Adams
B = Jennie Zaltz
C = Frank Rollins
D = Eddie Gonzalez
E = Bertha Johnson
F = Louise Bresnahan
G = Ray Cortez
H = Melvin Wilkins
I = Sylvia Manning
J = Wayne Prescott

TRAITS TO BE USED IN THE TEN-STUDENT SEMINAR GROUP
(STUDENT HANDOUT)

The Assignment

Prepare a long formal analytical report that presents your study to determine the best ____ for ____. Before this analysis-of-alternatives-with-recommendation report, please attach a one page "Context" brief in which you specify who your reader(s) would be and how your report would be used.

(Comes after reading and discussion of appropriate material, e.g., "Report Writing," Ch. 13 in Lesikar.)

Traits Under Consideration

1) Comment on the format of the report, i.e., placement of title fly, title page, letter of transmittal, table of contents, lists of illustrations, synopsis, the report proper, appendix, and bibliography. Comment on the effectiveness of the following parts: a) letter of transmittal (especially style), b) synopsis (especially order), and c) bibliographical form (especially consistency).

2) Comment on the introduction of the report, examining whether it adequately fulfills the following goals: prepares the reader(s); establishes purpose(s), scope, limitations, background, sources and methods of collecting information, and definitions; and gives a preview.

3) Comment on the body of the report. Is it effectively organized and sufficiently detailed? Does it flow well? Comment also on the ending of the report. Does the recommendation follow logically from what has preceded it? If you were the intended reader, would you be convinced.

4) Comment on word choice. Are words appropriately familiar, short, strong, and concrete. Have verbs been used instead of nominalizations? Are the meanings of all words clear and precise? Has needless technical jargon been avoided? Cite examples of particularly well chosen (or inappropriate) words.

5) Comment on sentences. Are the lengths of sentences appropriate and varied? Is sentence content limited so that sentences are unified and clear? Is syntax economical? Are sentences structured for appropriate emphasis? Cite examples of exemplary (or ineffective) sentences.

Student Handout on Traits to be Used in the Ten-Student Seminar Group (continued)

6) Comment on paragraphs. Are paragraphs unified and coherent? Are topic sentences used effectively? Are transitions within and between paragraphs used effectively? Cite examples of superior (or inferior) paragraphs.

7) Comment on the graphic aids. Which of the following have been used: tables, bar charts, pie charts, line charts, maps, photos, miscellaneous other illustrations? Comment on the effectiveness of layout, title captions, and the placement of graphic aids throughout the report.

8) Comment on the overall readability of the report, including the persona of the author. Has the principle of adaptation been applied successfully throughout the report? What strategies strike you as particular assets? Which may jeopardize the effectiveness of the report?

SEMINAR PAPER GRADING SHEET
(STUDENT HANDOUT)

Name ______________________________

Traits	Outstanding 5	Distinguished 4	Competent 3	Weak 2	Unsatisfactory 1
1. Format and letter of transmittal, synopsis, and bibliography					
2. Introduction					
3. Body/Ending					
4. Words					
5. Sentences					
6. Paragraphs					
7. Graphics					
8. Overall Readability and Adaptation					
9. Seminar Participation (preparedness in both speaking & writing)					

Total_____

A+ = 44-45
A = 42-43
A- = 41

B+ = 39-40
B = 35-38
B- = 32-34

C+ = 29-31
C = 27-28
C- = 24-26

D = 23
F = below 23

SEMINAR EVALUATION
(STUDENT HANDOUT)

____
(name)

Please answer the following questions about the Seminar Method. Your ideas will help me to make changes that you believe would improve this technique. Thanks very much.

1. In general, how would you evaluate the seminars? Did you find them helpful? intimidating? Both?
2. Did you feel that the oral reports were constructively critical? Describe your reactions to what was said about your paper.
3. Was the sheet explaining the discussion traits sufficient? Was it clear? How might it be made more helpful?
4. Would you have liked any other kind of information about the seminar, beforehand? Please detail.
5. Did comments made by students seem appropriate and accurate? Please detail.
6. Did comments made by the instructor seem helpful? Please detail.
7. Did comments made by the instructor seem intrusive? Please detail.
8. Do you think this entire process of seminars has made you more aware of your own writing problems? Has the process helped you to improve your own writing? Describe, please.
9. Would you advise for or against the use of seminars in this class again?
10. What one recommendation would you make to improve the seminars?

3. On Friday, the instructor answers any last-minute questions on the seminar method (and then proceeds with whatever has been planned for that day's lesson).

4. On the following Monday, the peer-review sessions actually start, as is indicated on "The Seminar Schedule" student handout (where that hypothetical Monday is 11/4).

Roles Within the Seminar Group

Students play three roles in their seminar groups. As author, they share their draft with fellow group members and attend to the commentary received from them. As seminar participant, they give a three-minute oral report on some writing trait for eight of their group members' drafts, having prepared beforehand a written analysis of such traits (see "Responsibilities of a Seminar Group Member" and "The Seminar Worksheet" student handouts). As discussion leader, they coordinate eight group members' reports on the draft of one other group member, preparing a detailed critique of that draft for the author (see "Responsibilities of the Discussion Leader" student handout). These roles are always rotated. That is, students never do exactly the same thing twice --even when they give their oral reports as seminar participants, the traits that they critique are different for each paper--and they consistently fulfill what is expected of them.

The Seminar Schedule

Because the seminar-peer review process takes approximately twenty-five minutes per draft, two drafts can usually be discussed in each group during each seminar session. "The Seminar Schedule" student handout initially looks complicated and cumbersome, but it is neither; in the five years that I have utilized the seminar method, no student who has received the schedule has ever been unable to understand it after an explanation lasting no longer than ten minutes.

This schedule explicitly details how students are to prepare themselves for each seminar meeting. On this schedule, each student is represented by a letter (for example, Ray Cortez is Person "G"). Each particular writing trait to be reviewed--detailed on the "Traits to be Used in the Ten-Student Seminar Group" student handout--is represented by a number (for example, #2 refers to the introduction of the analytical report).

Papers are reviewed in alphabetical order, with Person A's paper being critiqued first, then Person B's, Person C's, . . . and finally Person J's (i.e., Wayne Prescott's). The specific dates on which papers are reviewed appear on the top row of the schedule (for example, on 11/8, Bertha's and Louise's papers will be reviewed).

To determine their specific tasks, students locate the letter representing their name in the box in the left vertical column ("Participants"). They then follow the horizontal row (which that box starts) across the page. In each box appears the code for what each student must do for every individual seminar meeting. For example, if Bertha

Johnson wanted to identify her responsibilities, she would first locate her letter--"E"--in the left most column and then proceed to read across. Here is what she would discover: at the first meeting (11/4) she would report on trait #3 for Person A's paper and trait #2 for B's paper; at the second meeting (11/6), she would do #1 for C's paper and be the discussion leader (DL) for D's paper; at the third meeting (11/8), she would listen while her own paper was being reviewed (--) and then report on trait #8 for F's paper; at the fourth meeting (11/11), she would do #7 for G's paper and #6 for H's paper; at the final meeting (11/13), Bertha would do #5 for I's paper and #4 for J's paper. Thanks to the rotating nature of this schedule, Bertha and her fellow seminar group members are kept active and involved in a wide variety of writing and responding activities.

Several seminar groups may meet simultaneously in different parts of the same room so that in a class with thirty students, for example, six drafts could be reviewed for each class meeting. Since it is _the students'_ responsibility to conduct these seminar groups, the teacher may attend several groups' meetings during the same day, more as an observer than a participant. The instructor need not automatically provide any additional feedback; if individual students request it, however, it should of course be given.

Once the seminar group sessions end, students return to their traditional class arrangement to continue revising toward their final drafts, which the instructor collects later in the semester. The "Seminar Paper Grading Sheet" student handout provides an efficient way to evaluate the finished assignment. Because students have been receiving so much feedback throughout their writing process, the instructor can be fairly brief here, simply checking boxes and making brief comments when some trait merits special attention.

Evaluating the Seminar

Why go to the trouble of implementing the seminar method of peer review? First, it really is _not_ that much trouble--while the various procedures may look formidable to an instructor who has not yet tried them, students have a fairly easy time understanding and implementing them. And they _enjoy_ them: the evaluations received on the "Seminar Evaluation" student handout reveal an extraordinarily high level of satisfaction with this method of teaching writing. In response to question #9, in the five years that I have incorporated the seminar approach to peer-review in my teaching, _100 percent_ of my students advise for the use of seminars again. They report that the method has promoted rapid growth in their writing skills. And I agree: it _has_. As a result of the seminar method, the growth experienced by students--as writers, editors, speakers, respondents, collaborators, leaders--is unmatched by any other pedagogical technique with which I am familiar.

CONCLUSIONS

Collaborative learning activities can provide valuable learning experiences for Business Communication students throughout the writing process. They are appropriate for any Business Communication curriculum --one that stresses management, one that stresses writing, or one that merges these two traditional tracks together. By developing interpersonal communications skills, organizational skills, and reading, listening, and writing skills, collaborative learning activities help pre-professional students to assist one another in maturing into fully professional members of the business community. As this paper has shown, students, properly trained and motivated, can constitute a valuable resource for one another.

With the recent Business-Higher Education Forum report calling tor Business curricula to "train managers who are more broadly educated, flexible enough to cope with change, and better able to communicate," collaborative kinds of activities should be central to the undergraduate Business writing [15, p. 1]. Research has indicated a positive correlation between self-actualization and one's interpersonal capability in organizations [40]. Self-actualized people are ones characterized by a motivation to achieve their fullest potential. As dynamic mechanisms for learning and communicating, collaborative activities provide many opportunities for student-writers to strive toward self-actualization. It has been asserted that "If organizations are to progress beyond the traditional autocratic style of management to one of openness, trust, and understanding, then steps should be taken to enhance interpersonal capability and self-actualization among managers" [40, p. 40]. Implementing collaborative learning activities in the undergraduate Business Communication curriculum surely constitutes one such step.

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TEACHING FUTURE MANAGERS HOW TO TEACH BUSINESS COMMUNICATION SKILLS

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ABSTRACT

Current curricula in business communication are generally effective in helping future managers develop the skills they will need for their own professional communications. However, managers are also responsible for the development of their subordinates' necessary job skills. And, like managers, communication skills are among those most critical for subordinates. Unfortunately, managers typically have had little, if any, formal college instruction on how to train and develop subordinates. Curricula in business communication can extend their ultimate positive influence on organizations by also directly and indirectly teaching future managers how to help their future subordinates develop skills in business communication.

INTRODUCTION

There is quite strong agreement by those who study management that communication is one of the most critical, if not the most critical, skills in the effective management of individuals, groups, organizations, and the work process [2; 19; 24; 29]. Communication bears a significant and all pervasive influence throughout a manager's general responsibilities of planning, organizing, and controlling [8]. Surely no one recognizes the importance of these managerial communication skills more than practicing managers and executives [17].

There is also strong evidence that communication skills are critical to the successful job performance of non-managerial subordinates [27]. This wide acceptance is often voiced in the exasperated complaints of practicing managers about subordinate business writing shortcomings [28], or by academicians in descriptive studies of entry level worker communication skill deficiencies that lead to poor performance [14].

Current curricula in business communication have been demonstrably effective in teaching future managers and other business professionals essential, validated skills in written communication and oral presentation [21; 11; 26]. These academic programs go beyond most others in business schools in their focusing on practical skills needed on the job. They also generally try to ensure that at the end of a course students who pass have indeed mastered, evidenced by actual demonstration, at least some acceptable level of these critical competencies. However, the focus in these programs is on helping students develop skills to meet their own professional communication needs, not on their also helping others, such as their future subordinates, develop these skills. Perhaps more effort could be made by academic programs to address the skill development needs of the future managers' subordinates as well.

It is true that students having had business communication classes often start out in their careers on the entry level of organizations as subordinates only. Yet, with a demonstration of technical and/or managerial competence, these subordinates tend to be advanced to supervisory and managerial ranks [5]. At these levels the former students still find valuable if not increased use of the business communication skills they developed earlier in college. Among their new managerial responsibilities, managers also now face a new responsibility critical to their job success: helping their subordinates develop skills necessary in meeting their performance objectives. And, as earlier suggested, included in these necessary subordinate skills are those commonly taught in academic programs of business communication. Unfortunately, most of these subordinates will likely not have had a formal course in business communication. Although their managers may have strengths in business writing and oral presentation, it is not necessarily true that they will know how to effectively impart these same skills to their subordinates. The managers' ability to impart these skills to their subordinates should be increased by present academic programs currently teaching, as students, future managers how to help their future subordinates develop critical communication skills. Although there has been work in teaching present managers how to train their subordinates in business communication skills [9], no research seems available in this area for future managers now enrolled in business communication courses.

The purpose of the present paper is to suggest that academic programs in business communication can extend their future positive influence on organizational effectiveness by not only teaching critical skills to future managers, but by also teaching these future managers how to teach these same skills to their subordinates. A justification is given for this curriculum addition based on the widely recognized responsibilities of professional managers. Finally, several recommendations are given of how business communication instructors can integrate instruction addressing the managerial skill requirement of subordinate development into the existing curriculum.

Illustrative Scenarios

Consider the following true life scenario:

> Carl was a training program designer on an important project for a large Eastern consulting firm. This was his first full-time professional job since finishing college a month before. He felt he had strong skills in writing, and had worked hard over the previous weekend to complete a major report that would provide the critical conceptual framework for the project. Carl sat crestfallen as he looked over the sparse but quite biting

> feedback, written in the report's margin by his direct supervisor and project manager, Carla. This feedback consisted mostly of terse comments like "No! No!" and "This is B.S.!!!" Carl was greatly disappointed at not only failing to please his supervisor on this first major assignment, but also felt devastated at his apparent creation of a very poor impression of his work and ability. Furthermore, he felt frustrated at not being able to understand, due to the ambiguity of the feedback he received, what exactly he did wrong.
>
> After gaining some courage and composure, Carl stopped by Carla's office. He sat down and told Carla that, whether accurate or not, her feedback would be useless to him unless she was more clear and specific. He indicated that her present "B.S." feedback did nothing more than to make him feel confused and angry. He then opened to the first page of his report and asked Carla to explain what she meant by her red-scrawled pejorative, "This is just a bunch of B.S.!!" After additional similar feedback interpretations from her, it became clear to Carl that the conceptual design was sound, but that the style was too academic for the intended practitioner audience. He was flabbergasted that Carla became quite satisfied with the report after he made appropriate changes in format and style. Although he was now pleased that his work was deemed acceptable, it took Carl several days to get over his resulting resentment and motive second-guessing from the manner in which Carla's feedback had initially been given. Albeit temporary, this resulting resentment and distrust had a decidedly negative impact upon Carl's work.

The manager in the above scenario had strong skills in many forms of business communication. However, she was painfully lacking in skills for teaching her subordinates these same critical abilities. Although her subordinates would eventually learn or lose their jobs, their learning experiences were generally repulsive and inefficient in terms of wasted time and emotional energy. Unfortunately, this manager's method of teaching subordinates is not uncommon. Many managers fail to recognize their important responsibility of helping their subordinates master skills in communication and other areas necessary for achieving performance objectives. Consider this second brief true life scenario:

> John is a sales representative for a large manufacturer of computer hardware. He consistently finds himself working overtime under uncomfortable pressure to complete his required quarterly proposed sales strategy report, and submit it to the regional office. His major obstacle seems to be his district sales manager. This manager requires a different kind of report to be submitted each quarter, but gives very few tangible guidelines on how he would like the report to be written. When John

> submitted his version of the report on the requested deadline, he repeatedly found the report quickly returned by the district manager, requiring a frantic time consuming revision under an exhausting deadline crunch. To cope with this recurring problem, John has decided to submit his report three or four days early to provide more time for the expected but unpredictable revision requests from his district manager.

Few managers seem to be able to provide corrective help other than in the form of utter ambiguity or, more frequently, direct threats to job security. Managers can be more effective communicators and manage in a more productive communication environment if they can help their subordinates also acquire and improve upon business communication skills.

JUSTIFICATION FOR CURRICULUM REVISION

A significant part of a manager's set of responsibilities relates to ensuring that subordinates have or acquire the skills necessary for meeting their individual job performance expectations. Managers can't rely on departments of human resources to select subordinates who already possess all present and future skills needed for performing jobs. For example, subordinates' job requirements may change considerably, and thus require their development of new skills to meet the new job requirements. The supervising manager is often held responsible for helping subordinates acquire these new skills, whether the manager personally provides the training or not. In fact, in many organizations a manager's performance is appraised partly on his or her efforts in helping subordinates develop requisite skills.

According to The Encyclopedia of Managerial Job Descriptions, each manager "...develops, utilizes and stretches the potential of employees, materials, and equipment to the fullest extent possible," and "...guides subordinates in carrying out assigned responsibilities, and trains them to assume more important responsibilities [25, p. 11]." A perusal of this collection of job descriptions for functional and more general managers in production, marketing and sales, personnel, accounting and control, computer operations, and office management and administrative services was made by the present author. This analysis revealed that this otherwise diverse group of professional managers is responsible for designing and implementing plans for improving and expanding subordinate skills. As a composit of several lists of responsibilities, each manager is responsible to train, guide, counsel, direct, develop, and motivate subordinates--all managerial efforts to help employees achieve desired performance objectives.

Although this commonly accepted managerial responsibility of subordinate skill development exists in principle, it is virtually unrecognized in academia as reflected by what is taught (and what is not taught) in most business and management school curricula. These curricula provide future managers with only a brief exposure to issues, methods, and techniques of subordinate skill development and training, typically represented by one textbook chapter in a personnel course. One might wonder then just how managers can obtain their skills to effectively fill their responsibility in subordinate training and development. Unfortunately, this critical skill development process for managers is at best characterized by unpredictable and wasteful happenstance. Managers learn mostly by their own mistakes, and by witnessing and thereby hopefully avoiding the mistakes of others. Although their learning through experience is quite effective, this process is very costly and at times lethal to a manager's career. In addition to this School of Hard Knocks, some managers build these skills by attending seminars and workshops conducted by entrepreneurial groups. These groups vary greatly in quality, although they at least are more responsive in this area to practicing managers' needs than are traditional institutions of higher learning.

Incipient supervisors and managers also develop skills in this area through following the models provided by their own previous managers and supervisors. Yet these latter models are often painfully inadequate or actually destructive. A very common and perpetuated mentality among managers is that subordinate training and development can be satisfied through the manager's forceful and candid advice in various forms such as "produce or pack up," "sink or swim," "shape up or ship out," or even "publish or perish." Too often these role models for potential managers have themselves failed to understand the importance and basic methods of helping subordinates build performance skills; and to help their subordinates know just how they are supposed to produce, swim, shape up, or publish. Managers now and in the future can ill afford to be so neglectful and wasteful of their human resources.

Although academic programs, including those in business communication, are generally remiss at present in teaching future managers how to train and develop their subordinates, there fortunately seems to be an increasing number of practitioners and academicians who at least recognize the importance of this managerial responsibility [3; 23]. This acknowledgement is well articulated below by Andrew S. Grove, President of Intel Corporation, in his article, "Why Training is the Boss's Job:"

> A manager generally has two ways to raise the level of individual performance of his subordinates: by increasing motivation, the desire of each person to do his job well, and by increasing individual capability, which is where training comes in. It is generally accepted that motivating employees is a key task of all managers, one that can't be delegated to someone else. Why shouldn't the same be true for the other principal means at a manager's disposal for increasing output?... Training is, quite simply, one of the highest leverage activities a manager can perform [15, p. 94].

RECOMMENDED CURRICULUM REVISION

Although it would likely be very beneficial for future managers, it is not recommended that a new business communication course be taught on how to train and develop subordinates. Even though the manager's training and development skills need is typically not currently being adequately addressed by business school curricula, it is the author's experience that any suggestion of a foreign interest in developing this curriculum area meets with immediate obstruction from personnel and other human resources faculty who decry what they claim as an invasion of their rightful (albeit neglected) turf. Even a new course in the business communication curricula appropriately titled "Teaching Managers to Train and Develop Subordinates in Business Communication Skills" would likely come under fire from human resource faculty. Besides, an additional course offering for the usually understaffed and overburdened business communication faculty would probably be impractical and unwelcomed.

Nevertheless, business communication faculty can extend their influence and begin to address this critical communication skill need for managers and supervisors by making slight revisions in their existing courses. These revisions can be made by either a direct or indirect focus on building managers' communication training and development skills, both of which still falling within the school-wide accepted curriculum boundaries for business communication.

Direct Focus

An addition could be made in the form of one or more class sessions which introduce the importance of a manager's efforts in subordinate communication training as part of total responsibilities and skill requirements in business communication. Useful relevant contexts to build upon here could be conducting subordinate training in staff meetings or internal workshops. Practical concepts and instructional methods should be presented to students in such topics as instructional design [7; 20], behavior modeling [22], role play and simulation [6], group discussion [13], audio-visual instructional aids [16], coaching [12], and adult learning [4; 18]. This instruction would provide students with a sound foundation for designing and conducting communication training as part of their future management responsibilities.

It would be important for the future managers to then have students practice what they have learned and receive feedback [29]. This essential additional reinforcing and supportive learning can be accomplished by assigning individual students or small groups to design and conduct a brief staff meeting in which they would teach the class (representing subordinates) how to perform some discrete communication skill or small set of skills such as memo writing, handling angry customers, giving effective corrective feedback, or using appropriate style or tone. Instructors could provide students with a list of skill topics for students to choose from. Since a manager's coaching role is a critical part of his or her training and development responsibilities, students could receive practice and feedback in this area by being assigned to hand in, after their oral presentation, a brief and specific coaching follow-up plan to ensure that desired subordinate skill performance is actually achieved. To avoid overburdening students with an already heavy load of written and oral communication assignments, instructors could integrate basic written and oral objectives from existing assignments into these assignments for subordinate communication training and development.

Indirect Focus

The learning value from existing written and oral assignments can be extended by requiring students to evaluate one or more assignments of their peers. With this method, students not only aim at achieving the highest level of cognitive learning objectives [1], but they also, more indirectly, begin building skills that they will need in providing corrective evaluation and feedback for their future subordinates' performance. On these peer evaluation assignments, students could be told that their evaluation work will be graded on the basis of their ability to (1) recognize and distinguish effective from ineffective communications, (2) develop appropriate standards or criteria for evaluating communications, and (3) provide useful, specific corrective feedback for their peers.

Another indirect source of learning comes from the example provided by the instructor. Students not only learn the skills dealt with in the course, but they may also have the unintended outcome of learning to present these skills to future subordinates in the same way in which they were presented to them by their college instructors [10]. Even though managers may know from past experience that a lecture method when used alone and at length can be very boring to learners, they may still use that method only because of the past pedagogically impoverished model provided by their business communication instructor. Thus, instructors must be sure that not only the content of what they teach is appropriate, but also that their methods of instruction are also effective.

SUMMARY AND CONCLUSION

Current curricula in business communication are generally effective in helping future managers develop the skills they will need for their own professional communications. However, managers are also responsible for the development of their subordinates' necessary job skills. And as with managers and supervisors, communication skills are among those most critical for subordinates. Unfortunately, managers typically have had little, if any, formal college instruction on how to train and develop subordinates. Curricula in business communication can extend their ultimate positive influence on organizations by also directly and indirectly teaching future managers how to help their future subordinates develop skills in business communication.

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TEACHING INTERNATIONAL BUSINESS COMMUNICATION: A REVIEW AND CRITIQUE

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ABSTRACT

An exploratory survey, conducted in the spring of 1985, attempted to determine the extent to which an international component is being taught in business communication courses.

Three hundred surveys were sent to a sample of four year colleges and universities throughout the U. S. Ninety-nine surveys (33%) were returned to the researchers; 96 were usable.

Seven variables, representing seven areas of international business communication were examined for (1) time spent on teaching them, (2) teaching methods used, and (3) teaching style used.

When offered, the most frequently taught components related either to written communication or to nonverbal communication. The international components that were least frequently taught were career factors and conflict management. The preferred method of teaching these international areas was text and outside supplements. The preferred style of teaching was lecture and discussion.

INTRODUCTION

Recently, there has been an increased awareness of the value of incorporating an international component into business communication courses. Several factors have contributed to this new awareness.

First, few careers exist today that have no international implications. Therefore, business communication instructors recognize the importance of preparing their students to understand the international environment.

Second, recent recommendations by the American Assembly of Collegiate Schools of Business (AACSB), the prominent accrediting body, have further created interest in presenting international topics in ALL business courses.

Third, a brief review of recent ABC conference programs indicates that members want to learn more about internationalizing business communication courses.

However, several complications stand in the way of instituting such changes. Perhaps the most obvious is confusion about the definition of the term "international component." Furthermore, many ABC members are uncertain about how their already-crowded course can be internationalized. Then, if the course can be internationalized, most professors will need self-education before they can teach an international component. Also, there is the problem of course materials; where can one find supplementary information? In addition, many instructors are hesitant to teach a component that is not addressed in the textbook they are using. Historically, the international area, when mentioned at all, has been centered in a single chapter or section of a chapter. Is this the best way to teach the international component? These problems must be addressed by those who wish to add this element to their courses.

In an attempt to determine the extent to which an international factor is being recognized in the teaching of business communication, the researchers conducted an exploratory survey of four-year colleges and universities.

METHODOLOGY

During the spring of 1985 a survey was sent to 300 schools; every state was represented on the initial mailing list. These schools were selected from three sources:

(1) A selection of colleges and universities whose business communication faculty belong to the Association for Business Communication (ABC),

(2) A selection of colleges and universities accredited by the American Assembly of Collegiate Schools of Business (AACSB), and

(3) A selection of schools whose catalogs indicate that business communication courses are offered.

Of the 300 surveys mailed from The University of North Carolina at Charlotte, 99 (33%) were returned to the researchers; 96 were usable. The findings in this paper are based on the 96 surveys; no attempt was made to identify the respondent's school or the state in which it was located.

FINDINGS

The first questions on the survey attempted to establish a profile of the respondent's school as it related to the teaching of business communication courses. The researchers wanted to ascertain (1) the total undergraduate enrollment, (2) whether business communication courses were required for a degree, (3) the number of students enrolled in business communication courses, (4) the frequency of business communication offerings, and (5) the level at which they are offered. Table 1 shows the results of this part of the questionnaire.

TABLE 1

Profile of Respondents' Schools

Undergraduate Enrollment			
0-1,000	16.7%	1,000-5,000	36.5%
5,000-10,000	24.0%	10,000-15,000	10.4%
15,000-20,000	10.4%	Over 20,000	1.0%
No response	1.0%		

Annual Enrollment in Business Communication Classes			
0-50	12.5%	50-100	12.5%
100-150	10.4%	150-200	15.6%
200-250	5.2%	250-300	22.9%
Over 300	11.5%		
No response	9.4%		

Level of Course Offerings			
Freshman	1.0%	Sophomore	31.3%
Junior	35.4%	Senior	3.1%
Junior/Senior	15.6%		
No response	13.5%		

Department in Which Courses Are Taught			
Business	68.8%	English	13.5%
Speech Comm.	7.3%	Other	1.0%
No response	9.4%		

The next section of the questionnaire asked respondents to list all the communications courses offered and whether they had any international dimension. Table 2 lists the most frequent responses. The next question asked for the titles and authors of the texts being used in the various communication courses. Table 3 shows a condensation of the responses to these questions.

TABLE 2

Most Frequent Course Title

Course Title	Frequency	International Component Yes	International Component No
Business Communication(s)	(42)	(19)	(23)
Business Writing	(6)	(2)	(4)
Managerial Communication(s)	(6)	(2)	(4)
Organizational Communication(s)	(5)	(2)	(3)

49 other course titles were mentioned one or two times each.

TABLE 3

Textbooks Used in Communication Courses

Text Title and Author(s)	Frequency	International Component Yes	International Component No
Business Communication, Himstreet & Baty	(13)	(13)	
No answer	(8)		
Business Communication, Huseman, et al	(6)*	(2)	(4)
Basic Business Communication, Lesikar	(5)*		(5)
Effective Business Communication, Murphy & Hildebrandt	(4)	(1)	(3)
Principles of Business Communication, Pearce, et al	(4)	(1)	(3)
Communication for Management and Business, Sigband	(4)	(3)	(1)
Effective Corresp. for Colleges, Robertson & Perkins	(3)		(3)
Communicating Through Letters, Wilkinson	(3)	(1)	(2)

53 other titles were mentioned one or two times each.

*This compilation includes more than one edition by the same author as mentioned by different respondents.

The remainder of the questionnaire attempted to learn how much time was spent teaching the international component, the teaching methods that were used to do so, and the teaching styles.

The international component was broken down to include the following variables:

1. The cultural environment (values, religion, law, society),
2. Semantics (vocabulary, connotation, translation),
3. Nonverbal factors (personal space, dress, body language),
4. Oral communication (pronunciation, accents, articulation),
5. Written communication (writing style, structure, organization),
6. Career factors (interviewing and supervising international employees),
7. Conflict management (power, strategies, skills).

The variables used to describe teaching methods included:

1. Textbook
2. Outside supplements
3. Text and supplements
4. Written assignments
5. Other

The variables listed under teaching styles included:

1. Cases
2. Lecture
3. Discussion
4. Lecture and discussion
5. Other

Following is a discussion of the findings of this part of the questionnaire.

Undergraduate Enrollment and International Variables

Crosstabulations, performed under the Statistical Package for the Social Sciences (SPSS), yielded some interesting relationships between undergraduate enrollment and (1) the amount of time devoted to each of the seven variables associated with international business communication, (2) the method of instruction, and (3) the teaching style used to teach each of the seven areas.

First, schools with small undergraduate enrollments (0-1,000) tended to spend less time on culture than schools with larger enrollments. Over 55% of the respondents in the smaller schools did not teach an international component on culture. Schools with enrollments of 1,000 to over 20,000 spent 1-2 days on culture. The method used to teach the cultural area consisted of a text with supplements; the style consisted of lecture and discussion. These findings were consistent in schools with a 1,000 to over 20,000 enrollment.

The teaching of semantics in the international sense was not as widespread as were other components. Approximately one-third of all schools with enrollments of 0-10,000 students did not teach semantics. When it was taught, approximately 0-1 day was spent on it. Again, if semantics was offered, it was taught through a text and supplements. Lecture and discussion was the preferred teaching style.

Nonverbal communication was one of the most popular of the international components. Results indicate that schools of all sizes spent 0-3 days on this area. Over half of the respondents (range: 49-76%) used a text with supplements and lecture and discussion to teach the nonverbal component.

When schools of all sizes were considered, the respondents (range: 32-75%) spent approximately 0-1 day on the oral communication component. Generally, this area, if it was offered, was taught from texts and supplemental resources. The preferred teaching style was lecture and discussion.

Written communication was the most popular of the international areas. Most schools, regardless of size (range: 50-56%), spent approximately 5 or more days on the written aspects of international business communication. A text and supplements was used most often to teach this area. The teaching style involved lecture and discussion along with a variety of outside assignments.

The areas of international careers and conflict management tended to have little popularity with respondents regardless of enrollment size. Over 50% of them (range: 40-57%) did not offer material on these two areas.

Course Level and International Variables

Results were noteworthy when crosstabulations were done between course level and (1) the seven international variables, (2) teaching methods, and (3) teaching style. Since respondents indicated that business communication was taught primarily to sophomores and juniors, the analysis was directed at those levels.

Fifty percent of the sophomores were exposed to international culture over a 0-1 day period; 19% were exposed to this area for 2 days. Forty-five percent of juniors spent 0-1 day on culture; 28% spent 2 days. Texts and supplements were used to teach the area. Lecture and discussion characterized the style of teaching.

When semantics was taught, 54% of sophomores had a 0-1 day exposure. Juniors, on the other hand, spent a little more time on the area (31%, 0-1 day; 21%, 2 days; 17%, 5 or more days). Texts and supplements were used to teach the area. Lecture and discussion was the preferred teaching style.

Fifty-eight percent of the respondents who taught at the sophomore level spent 0-2 days on nonverbal communication (25%, 0-1 day; 33%, 2 days). At the junior level, 39% of the respondents spent

0-1 day on the nonverbal area, 18% spent 2 days, and 21% spent 3 days. Again, the teaching method was text and supplement, and the teaching style was lecture and discussion.

At the sophomore level, 44% of the respondents spent 0-1 day on oral communication; 26%, 5 or more days. At the junior level, 32% spent 0-1 day, and 21% spent 2 days. Text and supplements and lecture and discussion were the preferred method and style, respectively.

Forty-two percent of those teaching at the sophomore level spent 5 or more days teaching international aspects of writing; 29% spent 0-1 day. Forty-three percent of instructors at the junior level spent 5 or more days; 14% spent 2 days; and 11% spent 4 days. Instructors utilized texts and supplements to teach this area along with writing assignments. The teaching style for writing involved lecture, discussion and cases.

Little time was spent on career-related information at both sophomore and junior levels. Forty-two percent of the respondents who taught business communication at the sophomore level did not involve the career area in their courses. Twenty-nine percent spent 0-1 day. Thirty-six percent of those teaching at the junior level did not include this component. Thirty-two percent spent 0-1 day. When it was taught, text and supplement and lecture and discussion were the preferred method and style of teaching the material.

Thirty-nine percent of those teaching at the sophomore level did not offer anything on conflict management; 22% spent 0-1 day. At the junior level 43% did not teach conflict management; 18% did teach it over a 0-1 day period. Instructors used the text and supplementary material to teach conflict management; lecture and discussion, supplemented by cases, comprised the teaching style.

DISCUSSION AND IMPLICATIONS

A number of implications came to light as a result of this study. First, there appears to be a growing trend toward internationalizing business communication texts. Still, much confusion remains as to whether internationalization involves one chapter in a text or infusion of material throughout a text. Comments on the questionnaire support this observation that more international information needs to be presented.

Second, the leading texts in the business communication market have remained relatively constant over the last three years. The findings of this study support the results of a 1983 survey by South-western Publishing Company. Though the most prominent texts have remained at the top in our discipline, the need to further internationalize these resources is mandated. Faculty perceptions suggest that if a text does not adequately cover the international area, supplementation must occur, particularly in the areas of culture, semantics, nonverbal communication, and oral and written communication.

Another observation concerns the relative absence of career-related information and conflict management strategies in the international area.

Based on these observations, some implications can be made. First, business communication instructors must broaden their approach to teaching international aspects of communication. However, do they feel the need to do so? The impact of tradition was apparent in the results of this study: written and nonverbal communication were the most popular areas cited by respondents. Do these two areas give students enough background to appreciate and understand intercultural differences?

Research by Harcourt, Krizan, and Aldridge (1983) surveyed the perceptions of the way a first course in business communication should be taught. Respondents believed the most emphasis should be given to communication fundamentals, letters and memos, and report writing. These respondents believed the least emphasis should be given to communication theory, organizational communication, oral communication, communication technology and related topics [ethics, nonverbal communication, and intercultural communication]. Do these relatively recent findings support the movement toward internationalizing business communication courses?

Second, do business communication texts offer instructors enough material to go beyond the teaching of only a few international areas? In this study, respondents' perceptions of international offerings in business communication textbooks differed. On several occasions, respondents believed a specific text had international material while others felt the same text did not. This confusion underscores the need for more exploration, discussion, and research on what "international" really means. Bridging the gap between domestic and international communication issues is well worth exploring. Benefits of such exploration draw us closer to the reality of "the global village."

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BUSINESS GRADUATES' PERCEPTIONS OF RESPONSIBILITIES FOR COMMUNICATION SKILLS DEVELOPMENT: IMPLICATIONS FOR INSTRUCTION

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ABSTRACT

A study of the 1980 through 1984 baccalaureate graduates of Utah State University's College of Business was conducted to determine perceptions of responsibilities for communication skills development. The researchers developed an appropriate questionnaire to investigate perceptions about current communications tasks and needs after a thorough literature search, which revealed no information about graduates' perceptions of responsibilities for developing communication skills. Demographic analyses revealed that the survey respondents adequately represent the graduates. Statistical analyses revealed how graduates assign primary responsibilities for developing selected writing, reading, speaking, and listening skills to themselves, their colleges, and their employers. Some significant differences in perceptions were found when the data were analyzed by college major, years of employment, and sex. Implications for instruction derived from study findings are presented.

INTRODUCTION

Who is responsible for communications skills development according to the perceptions of baccalaureate business graduates? What responsibilities should be assigned to students, their collegiate institutions, their employers, and others for instruction in various facets of writing, reading, speaking, and listening? How will the assignments of responsibilities impact the instructional process?

Those questions and others were addressed in a 1985 study of the 1980 through 1984 graduates from Utah State University's College of Business, an American Assembly of Collegiate Schools of Business (AACSB) accredited institution. No prior information about perceptions of communication skills responsibilities had been gathered from the college's graduates. Since about two-thirds of the graduates of the college are employed by Utah businesses, information about the perceptions of that significant but unsurveyed group needed to be determined. Whether the perceptions of Utah State University College of Business graduates are similar to or different from those of baccalaureate business graduates elsewhere was unknown. In addition, information derived from the study would be useful in fine tuning the already successful college business communications program. Furthermore, the study could augment other college program self-study efforts in preparation for renewal of college accreditation from AACSB.

REVIEW OF LITERATURE

A thorough review of the literature relating to the communication needs of business graduates was conducted when the researchers began to formulate ideas about the study. Space constraints will allow only a highlighting of selected findings from the relevant literature.

Previous researchers, including Storms [7], Rader and Wunsch [6], Hewing [2], and Swenson [8], found that business graduates need both written and oral communication skills. The composition of the listings of communication skills that business graduates need varies somewhat from study to study as does the relative importance of those skills for successful on-the-job performance. Furthermore, such researchers as Storms [7] and Swenson [8] concluded that the communication skills needed by recent business graduates may differ from the communication skills that they will need later in their professional lives.

Researchers such as McCallum [4], Addams [1], and McKeown [5] investigated the relative emphases that should be given to various skills in the business communications course, but these studies focused on one skill, one occupational group, or one local or regional area. Studies by Radar and Wunsch [6], Storms [7], Lemley [3], and Hewing [2] investigated needs for a broad spectrum of communication skills. For example, Rader and Wunsch's [6] survey of Arizona State University business graduates revealed that oral communication skill is more important than written communication skill. Storms' [7] survey of business graduates of Miami University of Ohio revealed that the most frequently prepared documents are memos, letters, and short reports and that stating the purpose to the reader and writing clearly are the most important communication skills. Hewing's [2] study of business graduates of the University of Wisconsin--Whitewater revealed that more instruction is needed in both writing short reports and in oral communication.

The literature search did not reveal any information from the perspectives of business graduates about the assignment of responsibilities to various entities for communications skills development.

The primary points of agreement in the literature are that business graduates need both substantial written and oral communication skills to be successful in the business world. Beyond that, the divergent findings from various studies do not fit into meaningful and indisputable generalizations. In fact, most studies of the communication skills needed by business graduates raise as many questions as--perhaps more questions than--they answer.

METHODOLOGY OF THE STUDY

After reviewing questionnaires used by others studying business communications tasks and needs, the researchers devised a three-page questionnaire. The first section was for demographic information, and the second section was for perceptions of current communication tasks and needs. The researchers made an effort to construct a questionnaire instrument that was simple for respondents to complete. Typical responses included checking categories, recording estimated percentages, and circling positions on a Likert-like scale. In addition, respondents had the options of adding items to the listings in the survey instrument and of providing unstructured comments about current communication tasks and needs. The survey instrument was scrutinized carefully while in the developmental stage, and the researchers revised it many times to ensure its suitability for collecting the desired types of information.

The researchers selected a random sample of all Utah State University College of Business graduates from 1980 through 1984, stratified by year of graduation, for research purposes. A total of 523 business graduates were identified to receive the questionnaires, about 50% of each of the past five year's graduating classes. Potential respondents received cover letters asking for participation and providing easy-to-follow instructions and their questionnaires. Two followup letters were sent to the potential respondents at intervals of approximately three weeks if they did not return completed questionnaires. The overall response rate after the followups was 24%. Two factors impacted the response rate: (1) the inaccurate and out-of-date mailing addresses for College of Business graduates provided by the university alumni office and (2) the amount of detailed information that the questionnaires sought.

When completed questionnaires were received, the researchers scanned them before the data were recorded for later analyses and interpretation. Using SPSS-X, the researchers subjected the data to descriptive and inferential statistical procedures.

ANALYSES OF DEMOGRAPHIC FACTORS

Although the response rate for the study was low, analyses of the demographic data suggest that overall the survey respondents are representative of the population from which they were selected. About 89% of the respondents are in the 30 and under age categories, with nearly half in the 26-30 years age group. Since the typical Utah State University College of Business graduate is in his or her early to middle twenties at the completion of the baccalaureate program and could have been employed full-time since graduation from one to five years, he or she should typically be 30 or under in terms of age.

When the survey respondents were categorized by year of graduation, the 1981 graduates were slightly overrepresented and the 1983 graduates were slightly underrepresented. Why the 1981 graduates have a high response rate and why the 1983 graduates have a low response rate are not logically explainable by extenuating circumstances.

Nearly two-thirds of the questionnaire respondents are male, which closely matches the proportion in both the population and the selected sample. The overwhelming majority of respondents have been employed in their professions four or fewer years; this appears logical since most business graduates become professionals after college graduation and since the study was restricted to graduates from the previous five classes. Sixty-six percent of the respondents are employed in Utah, matching exactly with statistics provided by the university placement office. Nearly 36% of the study respondents earn between $15,000 and $20,000, while nearly 28% earn more than $25,000. This data corresponds with salary patterns of recent College of Business graduates.

The majority of questionnaire respondents graduated with marketing, business administration, or accounting majors. This parallels the distribution of majors of College of Business graduates. As was expected, the majority of respondents work in service-related businesses and in either businesses with fewer than 100 employees or with more than 500 employees.

The sample appears to be representative of the larger group from which it was selected in terms of demographic variables although a few relatively minor deviations from expectations are present.

ANALYSES OF GRADUATES' PERCEPTIONS

In one section of the questionnaire, respondents were asked to apportion in percentage form perceived responsibilities for developing various writing-related, reading-related, speaking-related, and listening-related communication skills to four entities: self, college, employing company, or other specified source.

Assignments of Major Responsibilities for Selected Communication Tasks

Table 1 lists the entities to which graduates assigned the largest percentages of responsibilities for the selected communication tasks based on their perceptions. Graduates assigned the largest percentages of responsibilities to themselves for developing memo writing skills; internal and external communication reading skills; meetings, telephone, interpersonal, and oral briefing speaking skills; and one-to-one, small group, and large group listening skills. They assigned the largest percentages of responsibilities to their colleges for letter, short report, and long report writing skills and for platform speaking, dictating, and interviewing skills. In addition, graduates assigned the largest percentages of responsibilities to their employing companies for guideline, instruction, and proposal writing skills. Graduates did not typically assign responsibilities to other entities; but when they did, the entities were almost always high schools for memo, letter, short report, and long report writing skills and for telephone speaking skills.

TABLE 1

BUSINESS GRADUATES' PERCEPTIONS OF LARGEST ASSIGNMENTS OF RESPONSIBILITIES FOR SELECTED COMMUNICATION TASKS

Task	Entity	Mean Percentage of Responsibility Rounded to the Nearest Whole Number
Writing:		
Memos	Self	42%
Letters	College	49%
Short Reports	College	53%
Long Reports	College	55%
Guidelines	Company	51%
Instructions	Company	51%
Proposals	Company	45%
Reading:		
Internal Communications (those generated within the company)	Self	49%
External Communications (those generated outside the company)	Self	56%
Speaking:		
Platform Speeches	College	47%
Meetings	Self	42%
Telephone	Self	48%
Dictation	College	45%
Interpersonal	Self	52%
Oral Briefings	Self and College (tie)	40%
Interviews	College	45%
Listening:		
One-to-One	Self	60%
Small Group	Self	52%
Large Group	Self	50%

Since the initial examination of the data showed a non-normal distribution, the SPSS-X subprogram CROSSTABS was used to compute Chi-square and Cramer's V values for the assigned responsibilities by college major, years of employment, and sex. This (1) determined if relationships exist between the graduates' perceived assignments of responsibilities and the demographic variables that could not have occurred by chance (at or below the .05 significance level) and (2) if this were so, determined the strengths of the associations. For presentation purposes, the complementary writing and reading tasks as well as the complementary speaking and listening tasks are grouped together.

Assignments of Responsibilities for Writing and Reading Tasks

Table 2 identifies the perceived assignments of responsibilities for writing and reading tasks by college major for which significant relationships exist. In two-thirds of the cases, the Cramer's V values are on the lower half of the scale, suggesting that the relationships are not strong. Since the crosstabulations do not identify the groups that are responsible for the significance levels, deductive analyses were used for that purpose.

TABLE 2

BUSINESS GRADUATES' PERCEIVED ASSIGNMENTS OF RESPONSIBILITIES FOR WRITING AND READING TASKS BY COLLEGE MAJOR

Task	Entity	p	χ^2	d. f.	V	N
Writing:						
Memos	Self	.03	216.18	180	.49	88
Memos	Company	.03	160.04	130	.45	78
Memos	College	.03	205.09	170	.50	82
Letters	Self	.01	169.36	130	.43	90
Long Reports	College	.04	192.64	160	.46	91
Guidelines	Self	.05	134.85	110	.37	81
Guidelines	Company	.05	190.08	160	.46	91
Guidelines	College	.001	231.55	170	.54	78
Instructions	Self	.04	137.63	110	.40	81
Instructions	College	.01	224.42	180	.54	77
Proposals	College	.01	201.50	160	.51	78
Reading:						
Internal Communications	Company	.03	183.00	150	.52	67

Only the administrative systems majors assigned major responsibilities to colleges for teaching memo writing. Accounting majors perceived that this skill should be taught by companies, while finance majors thought that the skill should be self-taught.

Administrative systems, accounting, finance, marketing, and marketing education majors assigned major responsibilities to colleges for teaching letter writing skills. Administrative systems and marketing majors assigned very little responsibilities to companies for developing letter writing skills.

All majors except business education, marketing education, and production majors assigned responsibilities greater than 50% to colleges for teaching long report writing. Business administration majors perceived that companies had little or no responsibilities for teaching that task.

None of the graduates regardless of major assigned major responsibilities to colleges for teaching guideline writing. Accounting, business administration, marketing, and administrative systems majors assigned very high responsibilities to companies for that task, while finance majors assigned high responsibilities to themselves for the same task.

Most graduates assigned major responsibilities to companies for teaching instruction writing. Finance majors perceived that colleges have very limited responsibilities for developing instruction writing skills. Accounting, marketing education, and personnel majors believed that instruction writing skill should not be self-taught.

Business administration and marketing education majors assigned high levels of responsibilities to colleges for teaching proposal writing, but finance majors assigned high levels of responsibilities for that task to companies.

Finance majors also assigned high levels of responsibilities to companies for teaching the reading of internal communications; however, all other majors assigned low levels of responsibilities to companies for the same task.

No significant relationships were identified for assignments of responsibilities for writing or reading tasks by years of employment.

Table 3 shows the perceived assignments of responsibilities for writing and reading tasks by sex for which significant relationships exist. Two of the three Cramer's V values are slightly above the midpoint on the scale, suggesting that the relationships are not particularly strong.

TABLE 3

BUSINESS GRADUATES' PERCEIVED ASSIGNMENTS OF RESPONSIBILITIES FOR WRITING AND READING TASKS BY SEX

Task	Entity	p	X^2	d. f.	V	N
Writing:						
Short Reports	Company	.02	22.03	11	.56	71
Instructions	Self	.05	19.95	11	.50	81
Reading:						
External Communications	Self	.03	22.76	12	.51	89

Deductive analyses reveal that while graduates assigned low levels of responsibilities to companies for teaching short report writing skills, a significantly higher percentage of males than females assigned low levels of responsibilities to companies for that task.

Although graduates assigned low levels of responsibilities to themselves for developing instruction writing skills, a significantly higher percentage of females than males assigned very low levels of responsibilities to themselves for that task.

While graduates assigned major responsibilities to themselves for the development of skills in reading external communications, a significantly higher percentage of males than females assigned 100% of the responsibilities to themselves for that task.

Assignments of Responsibilities for Speaking and Listening Tasks

Table 4 shows the perceived assignments of responsibilities for speaking and listening tasks by college major for which significant relationships exist. Slightly more than half of the Cramer's V values are on the lower half of the scale, suggesting that the relationships are not strong.

TABLE 4

BUSINESS GRADUATES' PERCEIVED ASSIGNMENTS OF RESPONSIBILITIES FOR SPEAKING AND LISTENING TASKS BY COLLEGE MAJOR

Task	Entity	p	X^2	d. f.	V	N
Speaking:						
Telephone	Company	.02	166.53	130	.46	79
Dictation	Company	.002	158.57	110	.53	57
Dictation	College	.002	229.01	170	.58	69
Interviews	Self	.01	178.86	140	.47	81
Interviews	Company	.0007	175.45	120	.51	68
Listening:						
Small Groups	Self	.05	157.91	130	.42	90
Large Groups	Company	.03	117.39	90	.44	68

All graduates assigned major responsibilities to themselves for developing telephone speaking skills and low responsibilities for that task to companies and colleges. Marketing, personnel, and production majors assigned the least responsibilities to companies for developing telephone speaking skills.

All graduates except finance majors assigned responsibilities to colleges for teaching dictation skills, but most finance majors believed that dictation skills should be self-taught. All majors except business administration majors assigned low levels of responsibilities to companies for teaching dictation skills.

Most graduates perceived that interviewing skills should be taught by colleges; however, accounting majors believed that interviewing skills should be self-taught, while marketing majors thought those skills should be taught by companies.

All graduates except business administration and personnel majors believed that listening in small groups should be self-taught, and all majors except business administration majors assigned very low responsibilities to companies for teaching listening skills in large groups. The assignments of responsibilities to colleges for listening tasks varied, and no significant relationships were found for any college major.

Table 5 shows the perceived assignments of responsibilities for speaking and listening tasks by years of employment for which significant relationships exist. Nearly twice as many of the Cramer's V values are above the midpoint on the scale as are below that point; this suggests that the relationships reported in this table are slightly stronger than those found in the other tables in the article but that the relationships still are not particularly strong.

TABLE 5

BUSINESS GRADUATES' PERCEIVED ASSIGNMENTS OF RESPONSIBILITIES FOR SPEAKING AND LISTENING TASKS BY YEARS OF EMPLOYMENT

Task	Entity	p	X^2	d. f.	V	N
Speaking:						
Platform Speeches	Company	.01	57.61	36	.49	60
Platform Speeches	College	.0007	101.19	60	.57	79
Meetings	Company	.01	73.61	48	.49	77
Telephone	Self	.001	102.53	64	.54	89
Oral Briefings	Self	.05	84.37	64	.52	78
Oral Briefings	College	.05	65.05	48	.45	80
Interviews	Company	.00001	98.70	48	.61	67
Listening:						
Small groups	Self	.001	88.93	52	.50	89

All graduates assigned high responsibilities to colleges and low responsibilities to companies for teaching platform speaking skills. Graduates employed less than one year assigned lower responsibilities for that task to companies than did those employed for one year or more. The longer graduates were employed, the more responsibilities they assigned to colleges for teaching platform speaking and speaking in meetings and the more responsibilities they assigned to themselves for developing telephone skills. Graduates employed one or two years perceived that oral briefing skills should be self-taught, but graduates employed three or four years perceived that oral briefing skills should be taught by colleges. Although graduates assigned major responsibilities to colleges for teaching interviewing skills, the longer the graduates were employed, the more responsibilities they assigned to companies for developing that skill.

The only significant relationship discovered for assignments of responsibilities for listening skills by years of employment was for self-taught responsibilities for listening in small groups. Graduates employed three or four years assigned significantly more responsibilities to themselves for that task than did graduates employed one or two years or those employed five or more years.

No significant relationships were identified for assignments of responsibilities for speaking and listening tasks by sex.

IMPLICATIONS FOR INSTRUCTION

Based on study data, the following implications seem prudent:

1. Utah State University's College of Business graduates should focus their individual efforts on developing business communication skills associated with these tasks: writing memos; reading internal and external communications; speaking at meetings, on the telephone, in interpersonal situations, and in oral briefing situations; and listening in one-on-one, small group, and large group situations.
2. Utah State University's College of Business should focus its business communication skills development program on the following tasks: writing letters, short reports, and long reports and speaking during dictation, during interviews, and from a platform.
3. Companies that employ Utah State University College of Business graduates should emphasize the development of business communication skills associated with writing guidelines, instructions, and proposals in their instructional programs.

Since some differences in perceptions of responsibilities for business communication skill development are related to such factors as college major, years of employment, and sex, those designing educational opportunities for business majors at Utah State University and for the companies employing them should be familiar with these differences and factor them into relevant educational programs whenever it is practical to do so. At Utah State University the classes designed to develop business communication skills have rather heterogeneous student populations in terms of all three factors, and segregating the students by one or more of these factors would be nearly--if not totally--impossible. In companies with large numbers of employees with similar characteristics and positions, some opportunities might exist for factoring differences in perceptions into the designs of educational programs.

CONCLUSION

Based on study data, it appears that primary responsibilities for teaching and developing certain writing, reading, speaking, and listening tasks can be assigned to the Utah State University College of

Business graduates, to the Utah State University College of Business, and to the companies that employ Utah State University College of Business graduates. Those responsible for educational programs for each of these entities should be guided by study findings whenever it is practical to do so.

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PART V
BASICS OF WRITING

HOW MUCH GRAMMAR IS ENOUGH?

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ABSTRACT

Since grammar enters into every Business Communication course formally or indirectly through revision of students' papers, this paper attempts to determine the weight of a course grade or the percentage of time devoted to grammar. It reviews the literature and discovers a sliding scale of being concerned from not-at-all to hugely. Then it analyzes this writer's 10% and 20% experiments. Finally it considers the results of a questionnaire that surveyed instructors' definitions of, approaches to, experiences with, and attitudes about grammar. It concludes that 12% seems to be enough grammar.

INTRODUCTION

Since the issue of teaching grammar or not must be confronted by every instructor when he or she chooses a text, grammar is an essential aspect of the tradition of teaching Business Communication. Once the choice has been made to teach grammar, certain questions arise: what is "grammar," how should I teach it, how much should I teach, and how will I know if I am effective? The essential question tackled herein is that of how much grammar is enough?

The other questions will also be touched in the following survey since they are essential to Business Communication. The underlying question of whether to teach grammar or not is not considered. It is assumed that all instructors teach grammar to some extent directly or indirectly. The journals do not talk about grammar as much as they did in the mid- and late-seventies; however, grammar still makes up a significant part of the typical Business Communication course. For instance, Halpern makes it one of the six strategies of business writing [5]. Ober and Wunsch also rank six components with grammar included under writing principles as having medium to heavy emphasis [7]. In addition, the public and business professionals, of course, are greatly concerned [8].

Though none of the researchers cited above ventures to answer how much grammar should be included or how much is enough, there are a few cautionary notes. Wilkinson says that the question is not easy or definite to answer and suggests that as much grammar should be taught "as the different students need [10]." He compares using the same instruction for all to "a doctor's prescribing the same medicine regardless of the ailment." Tibbets extends the medical analogy with "too great an insistence on perfect textbook (or purified) grammar tends to stiffen one's prose and give it stylistic arthritis... [9]." He points out that teachers of Business Communiation appear to fall into an either-or fallacy: "that grammar does not matter, or that it matters hugely." But where is that middle ground on the sliding scale of not-at-all to hugely?

Others agree that grammar is being taught and it should be because there is improvement going on in the classroom [4, p. 13] regardless of seventy-five years of experimental research telling us that there is no effect, or some harm, or nothing happening at all [8, pp. 105-7]. Davidson argues that we need a method of study for bringing grammar and rhetoric together [2]. Greenbaum says that grammar cannot be ignored by the schools but must be "placed in proper perspective [4, p. 14]." Finally, Connors concludes that "striking a balance between formal and rhetorical considerations is the problem we now face, and it is a delicate one [1, pp. 37-8]." He suggests that instructors may have to investigate the balance between rhetoric and mechanics for the rest of their professional lives.

THIS INSTRUCTOR'S ANSWER

I, too, have been perplexed when portioning the emphasis of my course. How much class time should I spend on grammar, and how much should the course grade reflect grammar? I checked into the wide variety of second to eighth editions of typical Business Communication texts and found that the average was about 576 pages with 34 devoted to style/revision and 20 pages designed as grammar/usage review. There appears to be a 10% emphasis on grammar, defined for the moment as effective sentence construction/revision and usage/error correction -- more about this definition later. If I were to use an accompanying workbook, I could add to my own 10% of textbook-guided instruction time from 10% to 50% or more of student out-of-class time on grammar.

When I talk about budgeting course time and emphasis, I face the limitations of a single 14-week, 25-student, 3-credit or half-course semester with approximately 35 real hours of instruction time. I do not plan out to the minute, but I like to have a sense of the proportions of emphasis in order to include percentages or weightings in my objectives and explanation of course grade (and not penalize students disproportionately by reducing individual paper and/or course grades because of grammatical errors). I may intermix several or more topics or concerns like teaching written report organization and avoiding pronoun-reference errors while making an effective oral delivery of that report. But upon reflection at course end, I can look at my notes and determine what I have been doing.

This is what I have done by way of experimentation. For one semester (54 students) I averaged about 10% instruction time and separate course grade on "pure" grammar. That is, I generally followed the style/revision Chapters 4 and 5 of Himstreet and Baty's Business Communications (7th Ed.) and just reviewed these sections, suggested that they were important, and worked a few exercises. I used the grammar and mechanics appendix as a reference for correcting reports, letters, memos. Finally, I gave my students a separate "grammar" test. This test was part of their mark on the final exam.

The test was the "Final Examination" found in the Instructor's Manual of College English and Communications by Stewart, Zimmer, Francis (Toronto: McGraw-Hill Ryerson, 1983). I had written for permission to use it and the nearly identical pre-test titled "Inventory Test." Both contain 100 items of spelling, punctuation, mechanics, usage, writing and vocabulary. Each item emphasizes recognition of error and its correction, excellent for testing ability to revise which I wanted my students to learn. The results:

1st Semester (10% grammar)			2nd Semester (20% grammar)	
pre-test	post-test		pre-test	post-test
62.17	66.5	mean	62.74	72.46
11.17	10.18	s.d.	11.37	9.29
34-88	40-89	range	34-88	47-94

The students were identical in placement, aspiration, and first-year English scores. But there was more improvement in the general scores of the second semester group (88 mostly second-year students). For this semester I upped the percentage to 20% and spent more time in class on Chapters 4 and 5 of Himstreet and Baty with some inductive teaching. Moreover, I added the incentive of written exercises and drills applied to the grammar and mechanics sections of the appendix, points of which I would explain and relate directly to revision of reports, letters, etc. I added some motivating inter-class competition and verbal rewards. There were four quizzes spaced throughout the semester along with the final exam. Finally, I assigned them in random pairs to edit each other's papers before submission.

The results were rewarding. Not only was there more statistically significant improvement in the pre-, post-test score, but the quality of the writing improved near the end of the course because students were more aware of grammatical problems and possibilities for editing. They had learned to revise and hand in publishable papers. And their attitudes about writing increased in confidence. Though there is no way to determine if their first-draft writing ability had improved, their finished products were quite professional, better than those of the other group who had only 10% exposure. Scores on the Writing Power section of the test showed significant increase in ability to revise.

1st Semester (10% grammar)			2nd Semester (20% grammar)	
pre-test	post-test		pre-test	post-test
3.69	2.86	mean	3.76	2.12
2.00	1.76	s.d.	1.94	1.37

Moreover, translated in the general Canadian grading scheme generally used at our university, there was a significant improvement in grade level for those who had the 20% emphasis. The following are grades on the grammar test according to the university scale and the percentage of those who would have failed if the test were the sole measure of literacy.

	1st Semester (10% grammar)		2nd Semester (20% grammar)	
	pre-test	post-test	pre-test	post-test
A = 80-100	(6) 9%	(5) 8%	(5) 6%	(23) 27%
B = 70-79	(7) 10%	(18) 32%	(18) 21%	(29) 35%
C = 60-69	(30) 45%	(22) 38%	(30) 35%	(24) 29%
D = 50-59	(16) 24%	(10) 17%	(22) 25%	(6) 7%
F = 0-49	(8) 12%	(3) 5%	(11) 13%	(2) .02%

What did the students think of the 20% weighting? "This course re-introduces many aspects of English forgotten or not known." "My roommate was studying for the GMAT at the same time as the grammar exam and he was studying similar things. The course would have helped him very much." "I'm learning a lot." "I'm really understanding this." "Why couldn't we have had this earlier?" "I really tried this time, for the first time in my life."

So what happens if I try for 30%? What coverage do I have to sacrifice from the content of the rest of the course? And what value is there in raising students from B to A in grammar? They may come out of my class good little revisers but miss the principles of effective writing and communicating in business contexts. Thus I have stopped for the time being to see what percentages others are using.

OTHER INSTRUCTORS' ANSWERS

The others I am referring to are the membership of the Association for Business Communication. Before 1985 is over they will be surveyed by questionnaire, and that questionnaire will be reported at the ABC Conference in Chicago, October, 1985. Meanwhile what follows are the results of the same preliminary questionnaire sent to 200 participants of the ABC/STC Northeastern Regional and Canadian Conference in Toronto, April, 1985. Response to the questionnaire was low (30%) because it was sent in late May without SASE due to the border crossing, and a large number of the conference paticipants were technical writers or professional writers.

The questionnaire contained 15 questions. The first three allowed me to determine that they were referring to the typical Business Communication course, that it was designed generally for the 2nd or 3rd year, that it had about 25 students, and that its general prerequisite was at least a one-semester composition course. A question concerning textbook used or recommended provided further identification of the course content; understandably no textbook seems to be a clear majority choice.

The fifth question was designed to pin down what we were talking about, that is, how is grammar defined by Business Communication instructors? Rather than elicit definitions, I was able to choose from the three meanings of Francis [3], the six grammar senses of Greenbaum [4], and the five meanings of Hartwell [6]. I devised the following four options which respondents were allowed to choose singly or combine.

___ a. Grammar 1: Student's inherent sense of language patterns and native ability to convey meaning.
___ b. Grammar 2: Linguistic science that analyzes, describes, formulates formal language patterns.
___ c. Grammar 3: Linguistic etiquette, usage, rules for governing Standard English, avoidance of errors, surface correctness.
___ d. Grammar 4: Effective sentence construction, revision, rhetoric, prose style, writing quality.
___ e. none of the above

Instructors were nearly unanimous on their choices of Grammar 3 and Grammar 4 as "grammar" approached in their courses. Specifically, 40% chose to consider grammar as a combination of Grammar 3 and Grammar 4. Thirty percent approached Grammar 4 alone in their course while 21% considered grammar to be only Grammar 3. According to the next three questions, the respondents have been teaching this grammar for a range of 2 to over 20 years with an average of 13 years, a perception that student training in grammar before their course was inadequate (81%), and a basically neutral to positive attitude toward teaching grammar.

The next three questions asked 1) if they used a grammar pre-test, post-test: 38% yes, 62% no. Of those who said yes, 73% said that students showed at least "a little" progress. 2) How they approached grammar: the most popular choices were 35% pointed out errors in compositions, 29% taught inductively from examples to rule, 15% deductively applied rule to exercise, 10% used motivational, systematic instruction with quizzes and applications, and 8% just reviewed the sections. Half used either student workbook or teacher-made material for some programmed instruction, but half had no programmed instruction in their courses. Ten percent used CAI.

The next major question, the heart of the questionnaire, was #12: "What percentage of the course (class lecture, student exercises, student marks, etc.) should be based on grammar?"; and "What percentage do you actually teach?" The range was from 0 to 30 on each section with a mode of 10. The average of what should be based on grammar was slightly over 12% of the course. What is actually taught in the typical Business Communication course is very close to 12% according to these same respondents.

Three comments reveal the difficulty in coming up with a percentage: "The percentage of grammar I teach is infinitely variable. I like to troubleshoot problems as they arise. I am a highly intuitive teacher." "I think students' grammar problems can be corrected on an individual basis since they don't all have the same problems." "Grammar is not taught formally in our course, but students are penalized for errors."

This last comment certainly indicates a real problem with the course: from the students' perspective there is the hidden agenda weight of grammar that penalizes them. The formal percentage may be 12%, but what is the percentage of each grade on each paper lost for grammar? Is this practice included in the grammar weighting of the course that is announced to the student, or does an overt concern for correct writing contain a subliminal penalty for imperfection, such a penalty really indicating a much higher percent of grammar that we consciously consider in a course?

Finally, two questions of curiosity were asked. The first was taken from the conclusion of a major New Zealand study reported by Hartwell [6, p. 107]: "The formal study of grammar improved neither writing quality nor control over surface correctness." Instructors ranged from 10% strongly agree to 19% agree, 8% undecided, but 49% disagree and 14% strongly disagree. Thus 63% of the Business Communication instructors disagree with the general findings of typical research that there is no effect or maybe even harm. One veteran instructor commented that "My students always say they learn a lot from the very short period I spend on grammar -- they haven't touched it since grade 9. I sometimes wonder why I need to teach it at a second year post-secondary level. I enjoy teaching it because the students seem grateful for it."

The second opinion question was my belief, reinforced by the grammar handbook teaching tradition of the Thirties [1] that "Students will learn how to edit their writing if they are taught how to use a grammar handbook." The responses were 5% strongly agree, 19% agree, 8% undecided, 49% disagree, and 19% strongly disagree. Thus 68% disagree that teaching the students to use the handbook section of a text or a grammar handbook like Harbrace College Handbook, Handbook of Current English, Business Writer's Handbook, etc. will help them edit their writing. I am still hopeful that the handbook is a true guide to revision if students are taught to find examples of correct usage and compare them to their own sentences for purposes of revision; the handbook would be a reference not a drillbook.

CONCLUSION

In summary, based on this preliminary survey, a two-thirds majority of the instructors of the typical Business Communication course believes that students profit from the teaching of grammar, defined as usage/error correction and effective sentence construction/revision. A four-fifths majority also perceives that the students who enroll are inadequately trained in grammar in spite of the fact that most of them have had one or two semesters of composition training before the Business Communication course. But the most important finding is that instructors seem to have settled on 12% as an ideal and actual percentage of grammar instruction.

Many of us may readily agree with the instructor who wrote: "Grammar should be taught prior to communications. There is too much content in Business Communication to also try to teach grammar." However, grammar enters our course, and though more may be better, none is never considered. This percentage seems to answer how much is enough. Twelve percent may be enough, however approached in lecture, inductive exercises, drills, errors in compositions, revision, separate grammar tests, etc. More or less is an individual decision, perhaps only the student's responsibility because the Business Communication instructor must get on with the rest of the course.

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CAN STUDENTS WITH LOW GRAMMAR COMPETENCY LEARN TECHNICAL WRITING SKILLS?

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ABSTRACT

This exploratory study examined the relationship between diagnostic test scores and students' ability to improve their letter writing skills. It focuses specifically on determining whether a student with low grammar competency can learn technical writing skills. Kendall's tau was used to determine the nonparametric correlation for the data. The results from this sample indicate that students can learn the technical aspects of writing letters regardless of their level of grammar competency.

INTRODUCTION

Effective written communication skills have long been considered as a necessary ingredient for success on the job and in business careers [1]. Many research studies have focused on pinpointing the writing skills needed to generate good business communications. Allred and Clark surveyed both business practitioners and academicians to determine their attitudes regarding communication problems experienced by recent college graduates in business [2]. They found that business practitioners believe that the major problems are weaknesses in achieving clarity and conciseness, accomplishing the message purpose (e.g., technical skills), and spelling. Their findings also imply that business practitioners tend to be more concerned with the graduates' lack of technical skill, while business faculty tend to be more concerned with the graduates' lack of grammatical skills.

Gretchen Vik found that communication students can study and improve their individual areas of grammar weakness, thereby allowing the instructor to avoid covering every detail of grammar. Specific topic areas that should be covered by the instructor include independent clauses, objective case, pronoun consistency, and capitalization [3]. John Waltman found a correlation between students' final grades in business communication courses and their grammatical competency [4].

These research results highlight the importance of both grammatical and technical skills in written communication. The present study involves a closer examination of the relationship between grammatical and technical skills and students' letter writing abilities. The major focus is on determining whether grammar competency is necessary before a student can effectively learn technical or non-grammar letter writing skills.

RESEARCH METHODOLOGY

The objective of this study was to determine the relationship between communication students' diagnostic test scores for grammar and their ability to improve (or learn) letter writing skills. The research methodology discussed below was designed to accomplish this purpose.

Sample

The sample for this study was composed of college students taking the required business communications course. The original sample consisted of 52 students. The final sample consisted of 42 students who completed all elements of the study. The final sample included 15 females and 27 males.

Data Collection Procedure

Two types of data were needed to accomplish the objective of this study: grammatical skills and technical (non-grammatical) letter writing skills. These two types of data were gathered in three sequential phases.

The first phase involved measuring grammatical skills by administering a grammar diagnostic test [5]. This test consists of 15 sentences that must be identified as correct or incorrect. Each incorrect sentence must then be corrected by the student.

The second phase consisted of classroom instruction covering a two week period after the diagnostic tests were administered. The primary focus in the classroom during this period was on technical letter writing skills. The coverage included lectures, such as on the theory for writing good letters, and class discussions of examples of good and poor letters. Grammar skills were not discussed during this period.

The third phase involved evaluating letter writing skills by requiring the students to write four business letters in class during a four week period of the semester. Each letter assigned was intended to be more difficult than the previous letter. The four types of letters assigned were a request letter, a favorable claim letter, and two different letters refusing a request.

Each letter was graded by two instructors to arrive at a consensus regarding technical accuracy and grammatical accuracy. The specific criteria for grading was:

Technical Skills: conciseness, clarity, completeness, positive tone, and "you" attitude.

Grammar Skills: sentence fragments, subject-verb agreement, run-on sentences, pronoun references and agreement, comma splices, spelling, paragraph construction, the use of adjectives and adverbs.

After the letters were returned to the students, the teaching instructor discussed the most common technical errors during class. Grammatical errors, however, were simply noted on each letter and not discussed in class. The number of technical and grammatical mistakes was recorded and used for the data analysis.

Analysis of Data

Two types of statistical analysis were used to examine the relationship between the diagnostic test scores and letter writing performance. First, frequencies were calculated for the diagnostic test scores and for the grammar and technical scores for each of the four letters. These frequencies allowed the researchers to calculate statistics such as the mean and mode to help describe the data gathered.

Second, Kendall's tau was used for finding the nonparametric correlation for the data. Kendall's tau was selected because of its applicability when a large number of cases (or scores) are grouped into a relatively small number of categories. The nonparametric correlations were used to examine the following relationships:

1. Diagnostic score/grammar score for each letter.
2. Diagnostic score/technical score for each letter.
3. Diagnostic score/grammar score for all four letter types combined.
4. Diagnostic score/technical score for all four letter types combined.

FINDINGS

Frequency Results

As shown in Table 1, the average score on the diagnostic test was 7.67 sentences correct (out of 15). The mode indicates that more students handled eight of the fifteen sentences correctly. The minimum score was one sentence correct, while the maximum correct was thirteen sentences. The mean scores for letters indicate that the average number of grammar mistakes was about one, which is a fairly low average.

Improvements in the students' letter writing ability could be detected by examining the average number of errors in each successive letter. A decrease in the number of errors would indicate improvement. This examination indicates that the students did not improve their grammar performance over time. However, some improvement in technical skill is apparent since the number of technical errors gradually decreased from Letter 1 through Letter 4 (with the exception of Letter 3, a difficult request refusal letter). Although the error rate increased for Letter 3, it decreased substantially in Letter 4, thereby indicating an improvement in technical skill.

TABLE I

FREQUENCY RESULTS

	Mean	Mode
Diagnostic Score	7.67	8
Grammar-Letter 1	1.29	1
Grammar-Letter 2	.64	0
Grammar-Letter 3	.95	0
Grammar-Letter 4	1.21	1
Technical-Letter 1	3.30	3
Technical-Letter 2	1.85	2
Technical-Letter 3	2.40	2
Technical-Letter 4	1.30	2

Nonparametric Correlation Results

The Kendall's tau statistics shown in Table II indicate that when all four letter types are combined, there is a moderate correlation for the diagnostic test scores and grammar errors (.3877). This correlation shows an inverse relationship between diagnostic test scores and overall grammar errors, meaning that higher diagnostic tests scores are associated with fewer grammar errors.

The correlation between diagnostic test scores and technical errors was also an inverse relationship. Its implication is that as students scored better on the diagnostic test, they also make fewer technical errors on the assigned letters. However, this association was relatively weak (.2963).

These statistics show a stronger correlation for the diagnostic/grammar relationship than for the diagnostic/technical relationship. As one might expect, it appears that the grammar diagnostic test is better for predicting grammar errors than for predicting technical errors.

The correlation between diagnostic test scores and grammar scores for each letter ranged from moderate to strong (see Table III). The diagnostic/grammar correlations for Letters 1 and 3 are higher than for Letters 2 and 4. If improvement in grammar ability had occurred, the diagnostic/grammar correlations should decrease during the sequence of four letters. However, a clear trend did not occur, implying that grammar skills did not increase.

TABLE II

COMBINED NONPARAMETRIC CORRELATIONS
(KENDALL'S TAU)

	Correlation Coefficient	Significance
Diagnostic/Grammar	.3877	.001
Diagnostic/Technical	.2963	.006

The correlation between diagnostic test scores and technical scores is weaker than the diagnostic/grammar correlations. The correlation between the diagnostic and technical scores indicates a weaker association between the diagnostic test and technical errors.

TABLE III

INDIVIDUAL NONPARAMETRIC CORRELATIONS
(KENDALL'S TAU)

	Correlation Coefficient	Significance
Diagnostic/Grammar 1	.4335	.001
Diagnostic/Grammar 2	.2811	.014
Diagnostic/Grammar 3	.3899	.001
Diagnostic/Grammar 4	.2481	.023
Diagnostic/Technical 1	.0504	.034
Diagnostic/Technical 2	.2273	.036
Diagnostic/Technical 3	.2549	.019
Diagnostic/Technical 4	.1945	.059

DISCUSSION OF FINDINGS

Although the sample size is relatively small, several inferences about students' letter writing abilities can be drawn from these results. First, it appears that students can learn technical aspects of writing by practice and class discussion of theory and good and poor examples of letters, regardless of their initial grammar competency.

Second, it appears that the students do not improve grammar skills when the instructor merely notes grammar errors in letter writing exercises that emphasize building technical skills. In other words, grammar skills must be taught separately and in depth (i.e., with discussion, practice, feedback, and others). Since the results indicate that grammar diagnostic test scores are not strong predictors of technical letter writing errors, the test should not be used to predict technical letter writing competency.

There was sufficient evidence, however, to suggest that the diagnostic test scores reflect student's grammar ability, which was its intended purpose. Communication instructors can therefore use the diagnostic test as a benchmark for determining students' grammar ability and for selecting the types of grammar problems students need to study (either in class or outside of class).

The results also indicate that communication instructors should spend some time addressing specific weaknesses--practice and feedback alone are not enough. However, it appears that practice and feedback do help students improve the technical aspects of their writing.

It also appears that students with poor grammar skills can still learn technical writing skills. Hopefully, a student's low grammar ability as indicated by his or her diagnostic test score will not bias a teacher into thinking that the student cannot improve his or her technical writing skills.

Additional research is encouraged before strong generalizations can be made. Specifically, the following research questions need further empirical research:

(1) A research effort similar to the present study is needed with a larger and more controlled sample.

(2) Diagnostic tests for technical writing skills need to be developed and tested for validity.

SUMMARY

This research began by administering a diagnostic test to measure grammar ability. Students were later required to complete four different letters in class. The letters were graded by two instructors to determine the number of grammar and technical errors. Nonparametric correlations were calculated to determine several key relationships. The results suggest that technical writing skills can be taught effectively in business communications courses, even though students have weak grammar skills.

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WHAT YOU SAY AFFECTS HOW YOU SAY IT: SENTENCE STRUCTURE

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ABSTRACT

Persuasive and bad news messages in business communication textbook models use initial free modifiers more frequently than routine requests do. In addition, these letters use complex sentences more frequently than routine requests do. Thus, sentence structure reflects both the organization and the complexity of the writing situation because the main point in bad news and persuasive letters is usually delayed by prefatory information and because they are more difficult to write than routine letters. T-unit length does not vary by letter type. Teachers can use these findings to teach students how to appropriately vary sentence structure by purpose.

INTRODUCTION

What good writing is, and how to teach it, has long concerned composition professionals. Reflecting this concern, teachers of English composition suggest--insist--that their students study models of good writing. The models are usually collections of essays. Similarly, teachers of business communication ask their students to study model letters in the textbook. These text models are often solutions to a simplified, single writing problem: a routine, bad news, or persuasive message.

The primary emphasis of most business composition teachers is on the organization of these models: routine messages are deductive, while bad news and persuasive messages are presented inductively. Little or no attention is paid by text author or teacher to whether the sentences in the memo, letter, or report reflect those differences. However, composition experts believe that writing style as well as organizational pattern should be suited to the message, and research has confirmed that the sentence structure of prose varies according to the situation. Surveying academic writing, Broadhead, Berlin, and Broadhead [1] found that literature writers use shorter base clauses, more multi-structure sentences and longer paragraphs than engineers. Crowhurst and Piche [2] have found that sentence structure is more complex when the essays are written to teachers (a critical audience) than to students (a sympathetic audience). Moreover, Crowhurst and Piche, as well as San Jose [7], have shown that persuasive essays have a more complex sentence structure than other rhetorical modes. While the authors of this study could find no statistical research on the style of business letters, they believed that an analysis of business letters would show that sentence structure, like organizational pattern, would be more complex in the more complex writing situations. Moreover, the use of complex sentence structure would make the T-units longer in persuasive and bad news letters. Finally, because bad news and persuasive letters require writers to delay news, these letters would have more introductory free modifiers than routine requests. Therefore, these specific research hypotheses were tested:

1. The length of T-units varies by letter type.
2. The number of dependent clauses per T-unit varies by letter type.
3. The number of introductory free modifiers per T-unit varies by letter type.

METHOD

Textbooks Used

Because students use the models in texts, not "real world" examples, textbooks were investigated. From a list of 60 texts commonly used in business communication, 6 (or 10%) were randomly selected for the sample: Bonner, Communicating in Business: Key to Success (1983); Bowman and Branchaw, Effective Business Correspondence (1979); Feinberg, Applied Business Communication (1982); Himstreet and Baty, Business Communications (1984); Lesikar, Business Communication (1984); and Pearch, Figgins, and Golen, Principles of Business Communication (1984). The chapters that emphasized three major business writing problems--routine news (direct requests and answers, good news, and neutral messages), bad news, and persuasion--were examined. Four sample letters of each letter type were randomly selected for analysis from each text. In all, 72 letters were examined.

Terms Defined

For the analysis, terms were defined as follows:

A T-unit is one simple or complex sentence. A compound or compound/complex sentence has two or more T-units.

One T-unit: In the meantime, we will send you our finest typewriter as a substitute.

Two T-units: *Twenty-five cents a day will cost you little*, *but it will help save a child's life*.

An introductory free modifier can be a word, phrase, or dependent clause that occurs before a base clause. It may or may not be set off by punctuation.

Introductory free modifier with punctuation: *Because he works hard and well*, he received three promotions.

Introductory free modifier without punctuation: *To find the answer* he researched the problem thoroughly.

A dependent clause has a subject and predicate but it cannot exist by itself as a sentence. A dependent clause may begin with a relative, an understood relative, or a subordinator.

Relative clause: The man *who won the award* will speak at the convention.

Clause with an understood relative (that): The applicant *I recommended* has taken a job in another city.

Subordinate clause: *Because the strike has lasted this long*, your shipment will now arrive March 10.

Data Compiled and Indices Used

The following data was compiled:

1. the number of T-units per letter
2. the number of words per letter
3. the number of dependent clauses per letter
4. the number of introductory free modifiers per letter

Using the above data, averages were computed to use as indices for the purpose of analysis:

1. the average number of words per T-unit (words per letter divided by T-units per letter)
2. the average number of dependent clauses per T-unit (dependent clauses per letter divided by T-units per letter)
3. the average number of introductory free modifiers per T-unit (introductory free modifiers per letter divided by T-units per letter)

The first two hypotheses were tested with a two by two analysis of variance (ANOVA); an Alpha of .05 was required to reject the null hypothesis. Letter types and textbooks formed classification variables for the ANOVAs. Each of the four indices served as the dependent variable in one ANOVA. Hypothesis three was tested with a three by two factorial Chi square design. Factor one was letter type (routine news, bad news, persuasive requests); factor two was the use of introductory modifiers or the absense of introductory modifiers.

RESULTS

Hypothesis One

The letters in the study averaged 16 words per T-unit, with a standard deviation of 3.76. No significant difference was found for T-unit length by letter type, by textbook, or for the interaction between letter type and textbook. Thus, the differences in the number of T-units in these model letters appear to be the result of random variation.

Hypothesis Two

The average number of dependent clauses per T-unit was 0.59, with a standard deviation of 0.40. The ANOVA of dependent clauses per T-unit (F 10,71 = 4.04, Alpha = .023) varies significantly by letter type (see Table I).

TABLE I

Analysis of Variance of Mean Dependent Clauses Per T-Unit

Source of Variation	Mean Square	F	Significance of F
Main Effects			
Letter Type	0.58	4.04	0.023
Textbook	0.19	1.36	0.25
2-Way Interactions			
Letter Type/Textbook	0.06	3.38	0.95
Explained	0.14		
Residual	0.15		

However, the variation in the number of dependent clauses per T-unit among textbooks and the interaction between textbooks and letter type were not significant.

Forty-one percent of the T-units in routine requests have dependent clauses; in bad news letters the percentage is sixty-nine; in persuasive requests it is sixty-eight percent. Post hoc analysis of the variation among letter types using Duncan's new multiple range test [5] found significantly fewer dependent clauses per T-unit in routine letters than in the bad news and persuasive messages. Differences observed between bad news and persuasive requests appear to be random (see Table II).

TABLE II

Post Hoc Test for Mean Number of Dependent Clauses by Letter Type

	Routine	Persuasive	Bad news	
	0.41	0.68	0.69	average by letter type
Routine		0.27	0.28	
0.41		(<0.05)	(<0.05)	
Persuasive			0.01	
0.68			(NS)	
Bad news				
0.69				

Hyphothesis Three

The placement of introductory free modifiers varies significantly by letter type. The Chi square (31,31) was significant beyond the .001 level. Twenty-four percent of T-units in routine letters have introductory free modifiers; in bad news letters the percentage is forty-two; in persuasive messages it is thirty-nine percent (see Table III).

TABLE III

The Percentage of Introductory Free Modifiers by Letter Type

	Introductory Free Modifiers		No Introductory Free Modifiers		Total
	No.	%	No.	%	No.
Routine News	52	(24)	166	(76)	218
Bad News	115	(42)	161	(58)	276
Persuasive Message	179	(39)	204	(61)	383
TOTAL	346		531		877

DISCUSSION

Stylistic similarities and differences exist in the three letter types. Routine letters have significantly fewer dependent clauses than bad news and persuasive letters, and they use introductory modifiers significantly less often than bad news and persuasive letters. Sentences in the three letter types do not vary significantly by T-unit length.

The differences observed in syntactic complexity and introductory free modifiers reinforce what students are explicitly taught about the three letter types. In routine letters, the message is expected and pleasant, so students learn to state it directly and simply. Sentences in textbook examples of routine letters appropriately have fewer complex sentences and fewer introductory clauses. In the bad news letters, the message is probably unexpected and certainly unpleasant, so students learn to delay the bad part with reasons and good messages. Not surprisingly, sentences in model bad news letters use many introductory free modifiers to delay the main point. A difficult letter to write, a bad news letter appropriately demands complex structure to be effective. In the persuasive message, students learn to provide reasons before requesting action. The textbook models' sentence structure reflects this, with introductory modifiers used frequently. The persuasive message is also difficult to write and apparently demands complex structure to be effective. Therefore, sentence structure is a microcosm of the entire message.

Instructors may want to use these results to encourage students to use these less obvious but still important differences among letter types. If so, instructors should select a textbook that supports the findings of this study and show students how textbook letter type affects style. Next they should either give students a series of revision steps to follow or teach them sentence-combining and -generating techniques. The former takes less classroom time, but it may also be less effective. Both methods should be tested for effectiveness.

Revision Approach

In the revision approach, students compute the following for each letter they write: the average T-unit length, the percentage of introductory free modifiers, and the percentage of dependent clauses. If the letter is routine, approximately 41% of the T-units should have dependent clauses, and approximately 24% of the T-units should have introductory free modifiers. If the letter is bad news or persuasive, approximately 69% of the T-units should have dependent clauses, and approximately 41% of the T-units should have introductory free modifiers. Any of the three letters should average about 16 words per T-unit. If the letter does not approximate these figures, the student should consider revision. Below are some possible ways to revise style:

To reduce T-unit length or the number of dependent clauses:

(original) Because we value your patronage, we are sending you a refund immediately.

(revision) We value your patronage. Therefore, we are sending you a refund immediately.

To increase T-unit length or the number of dependent clauses:

(original) We make the finest line of blue jeans, and you will like the way they fit and last.

(revision) Because we make the finest line of blue jeans, you will like the way they fit and last.

To increase the number of introductory free modifiers:

(original) Read these instructions carefully before you write your proposal.

(revision) Before you write your proposal, read these instructions carefully.

To decrease the number of introductory free modifiers:

(original) So that we may have the glassware in time for our January clearance sale, please mail them by December 15.

(revision) Please mail the glassware by December 15 so that we may may have them in time for our January clearance sale.

If instructors elect to use the revision approach, they must caution students to do the computations only after they have determined content and organization. Otherwise, students may distort content by adding unnecessary or omitting necessary words. In addition, to prevent the revisions from deteriorating into a game of numbers, writers should always remember that these percentages are averages for many letters in several textbooks. Writers should not feel that every letter they compose should conform to these averages. One may improve an individual letter by changing T-unit length but decide to leave the frequency of dependent clauses and free modifiers alone. One may want to add some dependent clauses but not enough to achieve the averages for bad news and persuasive letters. One may want to reduce the complexity of the sentence structure but leave introductory free modifiers alone because of their important transitional function. What changes, if any, are made must depend on the content and organization of the entire letter and the individual function of each sentence.

Sentence-Combining Approach

Instead of using the revision approach, instructors may prefer to use sentence-combining and -generating exercises. It may be better than the revision approach because these exercises seem to make students intuitively better writers. However, it is also more time-consuming since the instructor and students must spend hours on such exercises.

Repeatedly, studies have shown that sentence-combining and sentence-generating exercises are effective ways to increase syntactic complexity. O'Hare [6] found that students with sentence-combining experience used more and longer clauses than a control group. Recently Faigley [4] used generative rhetoric with college students to increase T-unit length from 14.22 to 15.70. Researchers such as O'Hare and Faigley find that sentence-combining and -generating do not increase the number of clauses per T-unit. However, as Daiker, Kerek, and Morenberg point out, this may be explained by the fact that, at least in one study, students "never formally practiced the creating of subordinate clauses . . . [3, p. 40]." They believe that sentence-combining exercises, properly used, have the power "to guide the composition student in whatever syntactic direction the instructor chooses [3, p. 40]." Using sentence-combining exercises to increase the frequency of subordination would be especially fruitful if these exercises were used in bad news and persuasive sentences, the kinds of situations that naturally lend themselves to the frequent use of dependent clauses.

Unfortunately, sentence-combining books now on the market would be inappropriate tools to use for teaching subordination and the use of introductory free modifiers in bad news letters and persuasive requests. Most of these books are not written for business communication students, they are not arranged rhetorically, and they do not emphasize dependent clauses or modifier placement. Diligent teachers, however, can prepare their own exercises based on models in the textbook. These exercises should begin with routine messages, because they use simple sentences more frequently than bad news and persuasive letters and so should be easier to write. The exercises should also emphasize using subordinate clauses and phrases, adverbs, and prepositional phrases as introductory free modifiers since a further examination of the sample tested revealed that these are the three most popular kinds of introductory free modifiers for all letter types. Below is an example of sentence-combining exercises for a bad news letter. If this kind of exercise is given to students regularly, presumably they will not have to figure percentages to vary their sentence structure appropriately.

> Directions: Try to make each group of sentences into one sentence. Also try to use the suggestions in parentheses.

1. The parking facilities will be modified by Monday.
2. The parking facilities will be modified by December 1.
3. This modification will increase parking for zoo employees. (Use this sentence as an introductory free modifier.)
4. This modification will provide safer parking for employees. (Use this sentence as an introductory free modifier.)

1. We broke attendance records.
2. This happened last fall.
3. You know this. (Make this into a subordinate clause and begin your sentence with it.)

1. We are expecting even larger crowds.
2. This will happen next year.
3. More people can generate higher revenues.
4. Higher revenues can bring higher salaries. (Use this as a relative clause.)

1. These larger crowds are the cause. (Use this sentence as an introductory free modifier.)
2. We need to expand the customer parking facilities.
3. The customer parking facilities will include the current employee lot.

1. We will provide the Stinson Lot for employee use.
2. Stinson Lot is two blocks from the zoo.
3. Stinson Lot will allow you to continue to have reserved parking. (Use this sentence as a subordinate clause.)
4. This will happen by December 1. (Use this sentence as an introductory free modifier.)

1. The new parking area will have security personnel.
2. The personnel will work twenty-four hours a day.

1. The area will be well-lit.
2. The area will be protected by a fence.

1. The city will install a traffic light.
2. The light will be at the corner of Elm and Birch.
3. The light will allow you to cross the street conveniently. (Use this sentence as a subordinate clause at the end of your sentence.)
4. The light will allow you to cross the street safely. (Use this sentence as a subordinate clause at the end of your sentence.)

1. The new parking lot will be available to all employees.
2. The new parking lot is provided at no cost to you.

1. Contact Lois Smith.
2. She works in the personnel office.
3. You may need more information. (Make this sentence into a subordinate clause and use it as an introductory free modifier.)

Finished version: (T-unit length = 15 words; dependent clauses = 45%; introductory free modifiers = 45%)

To increase parking for zoo employees and to provide safer parking for employees, the parking facilities will be modified by Monday, December 1.

As you know, we broke attendance records last fall. We are expecting even larger crowds next year, and more people can generate higher revenues which can bring higher salaries. Because of these larger crowds, we need to expand the customer parking facilities to include the current employee lot. By December 1, we will provide the Stinson Lot, two blocks from the zoo, for employee use so that you can continue to have reserved parking.

The new parking area will have security personnel twenty-four hours a day. It will be well-lit and protected by a fence. The city will install a traffic light at the corner of Elm and Birch so that you can cross the street conveniently and safely. The new parking lot will be available to all employees at no cost to you.

If you need more information, contact Lois Smith in the personnel office.

Conclusion

Whether the revision method or the sentence-combining approach is used, it seems reasonable that teaching students specific ways to manipulate style will make them better writers. Some students, because they are already good writers, will automatically vary sentence structure according to letter type. They, too, though, should benefit from becoming conscious of what they do unconsciously. Students in business communication classes already learn that content affects organization; they should also know it affects style.

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PART VI
TRAINING AND DEVELOPMENT

A DEVELOPMENTAL TRAINING APPROACH TO THE M.B.A. COMMUNICATION SKILLS PROGRAM

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ABSTRACT

This paper provides the rationale for applying a developmental training approach to the MBA Communication Skills Program. In doing so it overviews the difference between pedagogy and andragogy and stresses the importance of approaching MBAs andragogically. It also presents an outline of one university's developmental training approach to its MBA communication skills program. Finally, it highlights the benefits accrued and relates the pitfalls encountered in using this approach.

INTRODUCTION

Why would a university choose a developmental training program to teach communication skills to its MBAs? Because doing so makes good educational sense. Many MBA students have a family, a full-time job, and a desire to advance their careers via the MBA degree. These students typify the adult learner. As such, they demand the adult learning approach of a developmental training program.

This paper provides: (1) a rationale for using an andragogical training and development approach; (2) outlines one university's paradigm; and (3) relates both the benefits and pitfalls of such a program.

WHY AN ANDRAGOGICAL TRAINING & DEVELOPMENT APPROACH?

Human resource developer and adult education pioneer Malcolm Knowles [1; 2] observes that the great teachers of ancient history--Lao Tse, Confucius, Jesus, Socrates, Plato, Aristotle, Euclid, Ciero, Quintilian--taught adults. In doing so these educators assumed that learners learned through discovery, so they taught by using dialogue and "learning-by-doing" procedures. Unfortunately, the seventh century monastic school organizers labelled these procedures "pagan" and forbade their use [1, p. 42]. Knowles explains: "The teaching monks based their instructions on assumptions about what would be required to control the development of children into obedient, faithful, and efficient servants of the church."

"From this origin developed the tradition of pedagogy, which later spread to the secular schools of Europe and America and, unfortunately, was much later applied even to the education of adults. Let me point out that 'pedagogy' comes from the same stem as 'pedatrics'--the Greek word 'paid,' meaning child (plus 'agogus,' meaning leader of). So, literally, pedagogy means the art and science of teaching children. So to speak of 'the pedagogy of adult education' is a contradiction in terms [1, p. 43]."

To resolve this contradiction, Knowles supports the theory--andragogy, the art and science of teaching adults. Exhibit 1 compares the assumptions and designs of pedagogy and andragogy.

EXHIBIT 1

A COMPARISON OF THE ASSUMPTIONS AND DESIGNS OF PEDAGOGY AND ANDRAGOGY*

Assumptions			Design Elements		
	Pedagogy	Andragogy		Pedagogy	Andragogy
Self-concept	Dependency	Increasing self-directiveness	Climate	Authority-oriented Formal Competitive	Mutuality Respectful Collaborative Informal
Experience	Of little worth	Learners are a rich resource for learning	Planning	By teacher	Mechanism for mutual planning
Readiness	Biological devlopment social pressure	Developmental tasks of social roles	Diagnosis of needs	By teacher	Mutual self-diagnosis
Time perspective	Postponed application	Immediacy of application	Formulation of objectives	By teacher	Mutual negotiation
Orientation to learning	Subject centered	Problem centered	Design	Logic of the subject matter Content units	Sequenced in terms of readiness Problem units
			Activities	Transmittal techniques	Experiential techniques (inquiry)
			Evaluation	By teacher	Mutual re-diagnosis of needs Mutual measurement of program

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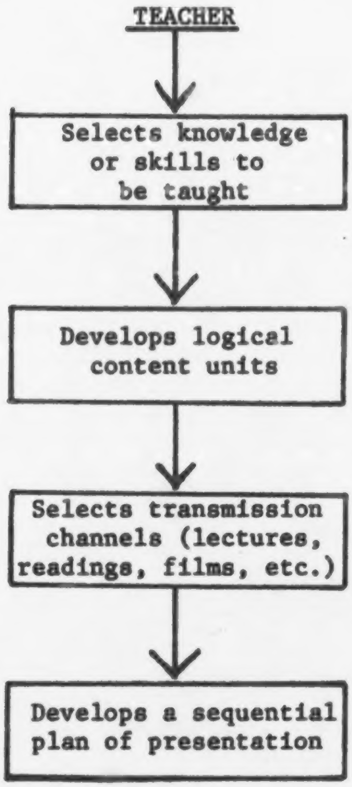
*Malcolm Knowles, The Adult Learner: A Neglected Species, Gulf Publishing Company, 1973, p. 104.

In terms of learning models, pedagogy follows a content model, while andragogy follows a process model. However, this does not mean that pedagogy deals with content and that andragogy does not. Knowles explains: "...the difference is that the content model is concerned with transmitting information and skills whereas the process model is concerned with providing procedures and resources for helping learners acquire information and skills [1, p. 102]."

Exhibit 2 represents the content model's teacher-controlled, input/output nature.

EXHIBIT 2

PEDAGOGICAL CONTENT MODEL*


TEACHER
Selects knowledge or skills to be taught
Develops logical content units
Selects transmission channels (lectures, readings, films, etc.)
Develops a sequential plan of presentation

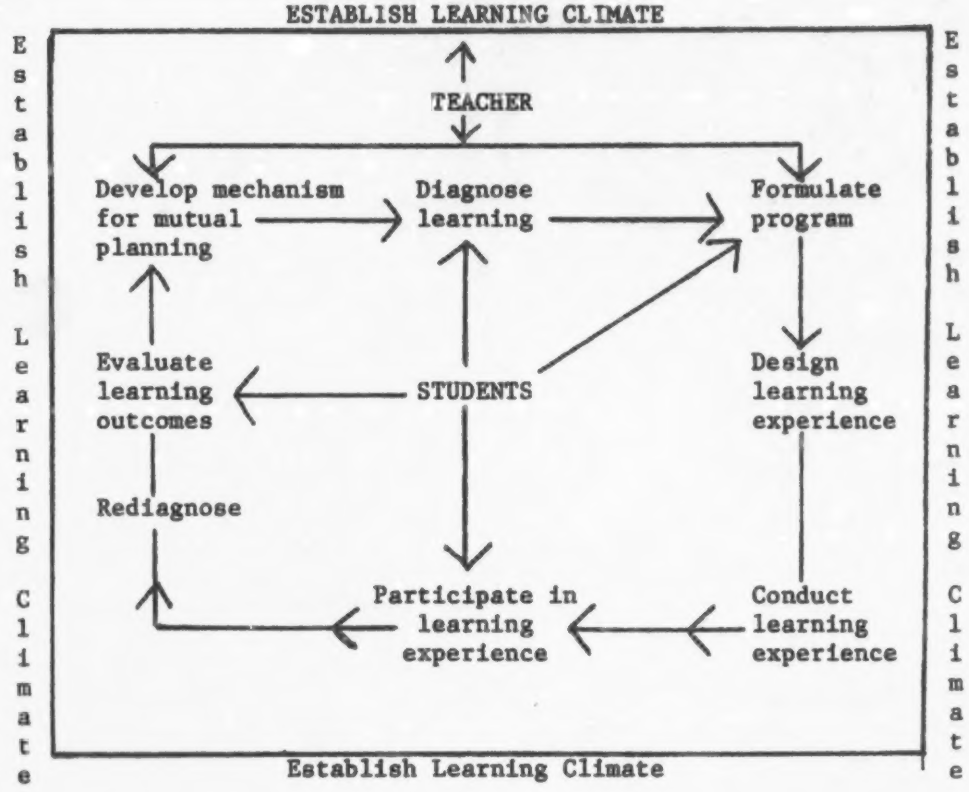
---

*Adapted from: Malcolm Knowles, The Adult Learner: A Neglected Species, Gulf Publishing Company, 1973, p. 102.

In contrast, Exhibit 3 represents the process model's collaborative, dynamic nature.

EXHIBIT 3

ANDRAGOGICAL PROCESS MODEL*


ESTABLISH LEARNING CLIMATE
TEACHER
Develop mechanism for mutual planning
Diagnose learning
Formulate program
Evaluate learning outcomes
STUDENTS
Design learning experience
Rediagnose
Participate in learning experience
Conduct learning experience
Establish Learning Climate
Establish Learning Climate
Establish Learning Climate

Since this process model is the blueprint for developmental training and since MBA students are adult learners, one southern university decided to use this approach as the foundation of its MBA Communication Skills Program.

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*Adapted from Malcolm Knowles, The Adult Learner: A Neglected Species, Gulf Publishing Company, 1973, p. 102.

ONE UNIVERSITY'S PARADIGM

The Challenge

The MBA population at Florida Atlantic University (FAU) seems especially suited to--if not demanding of--a developmental training approach. FAU serves the population of two high-tech counties in southeast Florida. As a result, many of its MBA students work fulltime for major corporations* and take two or three courses at night. Besides working fulltime and taking night courses, these students also have family responsibilities. In many cases they extend themselves because they view the MBA degree as their passport out of a technical job and into an administrative one. A number of these students already have masters degrees or even doctorates in other areas. Clearly, these students are adults--producers, doers, self-directed individuals. So when communication certification was added to FAU's MBA requirements, the challenge was to develop a certification program based upon adult learning theory.

The Goal

The goal was to establish a certification program that would: (1) create an open, participative climate; (2) diagnose learning needs; (3) create a structure for participative planning; (4) establish learning objectives; (5) provide and/or design activities; (6) operationalize the activities; and, (7) rediagnose the needs. To accomplish this goal, a developmental training program was designed.

The Program

Currently, FAU's program focuses on the students' written communication skills. Exhibit 4 diagrams the sequence of events leading to their certification.

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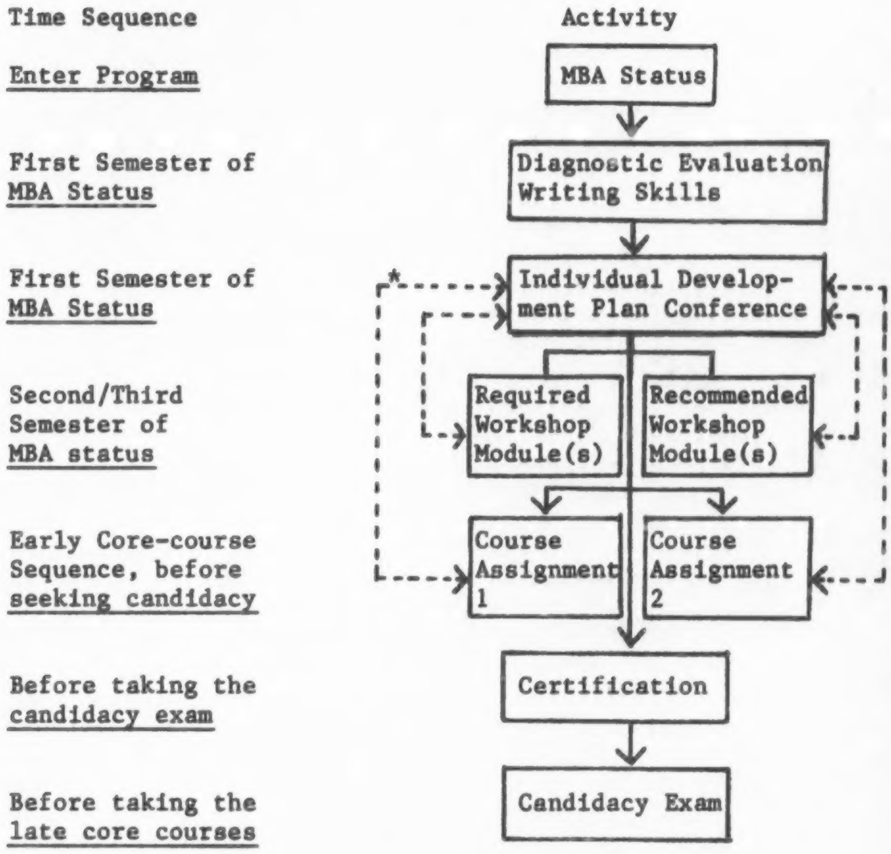
*Florida Atlantic University serves Palm Beach and Broward counties and collaborates with such corporations as IBM, Northern Telecom, Motorola, American Express, and Florida Power and Light.

EXHIBIT 4

MBA COMMUNICATION SKILLS PROGRAM
WRITTEN CERTIFICATION CYCLE


Time Sequence
Activity
Enter Program
MBA Status
First Semester of MBA Status
Diagnostic Evaluation Writing Skills
First Semester of MBA Status
*
Individual Development Plan Conference
Second/Third Semester of MBA status
Required Workshop Module(s)
Recommended Workshop Module(s)
Early Core-course Sequence, before seeking candidacy
Course Assignment 1
Course Assignment 2
Before taking the candidacy exam
Certification
Before taking the late core courses
Candidacy Exam

As soon as students are accepted as MBAs, Student Services gives their names to the director of the Communication Skills Program. The director then sends them a letter and brochure that describes the program, stresses its benefits, and provides them with the current diagnostic evaluation schedule.

Within the first semester, the students take the diagnostic evaluation. They are asked to respond to a business case via a memo, letter, or short report. The director then evaluates the content, organization, sentence structure, word choice, tone, mechanics, and format of the responses. She rates each aspect as either "accomplished," "acceptable," or a "focus area," according to the criteria outlined on the program's Writing Evaluation Grid. (See Appendix A.)

---

*Broken line = Individualized Instruction.

Over the next several weeks, the students meet one-to-one with the director to create an individual development plan. The director begins the meeting by establishing rapport and stressing the developmental (versus remedial) nature of the program. She then asks the students to read, consider, and respond to the comments she has made on their diagnostic evaluations. Next, the director shares the Writing Evaluation Grid with the students and asks them to evaluate and rate their own responses. (The director also encourages them to assess their own overall academic and business writing capabilities, independent of the diagnostic evaluation.) Together, the director and students create an individual development plan. (See Appendix B.) They identify the developmental areas, formulate the learning objectives, and contract learning activities.

Students are provided with both individual and group learning experiences. On an individual basis, students can develop their skills through computer assisted instruction, audio- or video-cassette learning programs, and textbook practice exercises.

The College of Business houses two computer labs. Students can use the Writer's Workbench analysis program [3] in the main computer lab as well as the tutorial disks [4] available in the college's personal computer lab. FAU's library has a communication skills learning center where students can listen to tapes on grammar and punctuation as they work through practice exercises. They can also work through videotape business or academic writing skills programs, as well as view films. In addition, over 200 newly purchased business communications texts and workbooks are available in the business library.

Group learning experiences are provided by the module workshops and in-class presentations. During the students' second or third semester, they attend the required module workshops that relate to their developmental areas or the recommended ones that would refine their skills.

Six module workshops have been developed. Each focuses on a different aspect of the Writing Evaluation Grid, as Exhibit 5 illustrates.

EXHIBIT 5

MODULE WORKSHOP FOCUS AREAS

Module No.	Title	Focus Area(s)
1	The Research Report	Organization; development; format
2	Basic Brush-Ups: Managing the Mechanics	Grammar; spelling; punctuation.

3	Effective Use of Language	Sentence structure; word choice
4	The Writing Process: Content & Organization	Content; organization; development
5	Unity: Fit & Flow	Content; organization; development; format
6	Tone: It's Not What You Say, But How You Say It!	Tone; organization; word choice

At these workshops, students apply writing techniques directly to their own academic papers and business correspondence. They self-assess, rewrite, and peer critique their work. For each module, students take a pre- and post-test designed to assess their proficiency.

In addition to the module workshops, students are exposed to group experiences when the communication skills director makes in-class presentations. These presentations focus on the writing objectives of the course assignments. (Both written and oral communication assignments are required in every MBA core course.) The students must submit two of their early core-course assignments to the director and receive a rating of "proficiency demonstrated without revision," as part of the certification process.

These course assignments provide the students with additional feedback and models for improving their writing. (They also provide feedback to the instructors.)

The students decide which assignments they wish to submit for certification. First, the instructors grade the papers. After the students have seen their grades, they ask the instructors to submit the paper to the communication skills program.

The same Writing Evaluation Grid criteria used to assess the diagnostic evaluation (Appendix A) is used to assess the course assignments. Only this time the papers receive an overall rating of "proficiency demonstrated without revision," "proficiency demonstrated with revisions," or "revision required." If they receive either of the last two ratings, the students return for another individual-development-plan conference. Both students and instructors are given edited and partially revised copies of the papers. These provide feedback and serve as models for complete revisions.

In order to reduce defensiveness and assure acceptance of the feedback, the communication skills assessments do not affect the grades given by the instructors. Of course, the students must then resubmit completed revisions of the papers or submit an entirely different one. This process continues until the papers demonstrate proficiency without revision.

Students receive their certification once they fulfill their individual-development-plan contracts, complete their required workshops, and receive proficiency ratings on two of their course assignments.

WHAT ARE SOME OF THE BENEFITS AND PITFALLS OF SUCH AN APPROACH?

The Benefits

A developmental training approach is a very positive one. It motivates students by involving them in their own learning process, and it motivates teachers by freeing them of their students' dependency. Student involvement and the personalized instruction it generates are two big benefits of this approach. Earlier, Exhibit 1 compared the assumptions and designs of pedagogy and andragogy. The andragogical design assumptions clearly outlined the students' role in diagnosing their own needs, formulating their own objectives, and negotiating their own learning activities. This kind of involvement gains their commitment and establishes a mutually respectful, collaborative relationship between the student and teacher--as opposed to a teacher-dependent adversarial one.

This approach also provides students with personalized instruction by sequencing learning events to match the students' readiness to learn; by involving the students in activities directly related to their learning objectives; and by getting their input as to how well the program helps them achieve their goals.

These andragogical assumptions parallel McGregor's Theory Y assumptions [5]. As Exhibit 6 shows, both view human nature and behavior positively (while the pedagogical and Theory X set of assumptions take a rather cynical view).

EXHIBIT 6

A COMPARISON OF THE ASSUMPTIONS ABOUT HUMAN NATURE AND BEHAVIOR UNDERLYING THEORY X AND THEORY Y MANAGEMENT PHILOSOPHY*

Theory X Assumptions about Human Nature (McGregor)	**Assumptions Implicit in Current Education (Rogers)**
The average human being inherently dislikes work and will avoid it if he can.	The student cannot be trusted to pursue his own learning.
Because of this characteristically human dislike of work, most people must be coerced, controlled, threatened in the interest of organizational objectives.	Presentation equals learning.
	The aim of education is to accumulate brick upon brick of factual knowledge.
The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, wants security above all.	The truth is known.
	Creative citizens develop from passive learners.
	Evaluation is education and education is evaluation.
Theory Y Assumptions about Human Nature	**Assumptions Relevant to Significant Experiential Learning**
The expenditure of physical and mental effort is as natural as play or rest.	Human beings have a natural potentiality for learning.
External control and the threat of punishment are not the only means for bringing about effort toward organizational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.	Significant learning takes place when the subject matter is perceived by the student as relevant to his own purposes.
	Much significant learning is acquired through doing.
Commitment to objectives is a function of the rewards associated with their achievement.	Learning is facilitated by student's responsible participation in the learning process.
The average human being learns, under proper conditions, not only to accept but to seek responsibility.	Self-initiated learning involving the whole person—feelings as well as intellect—is the most pervasive and lasting.
A high capacity for imagination, ingenuity, and creativity in solving organizational problems is widely, not narrowly distributed in the population.	Creativity in learning is best facilitated when self-criticism and self-evaluation are primary, and evaluation by others is of secondary importance.
Under the conditions of modern industrial life, the intellectual potential of the average human being is only partially utilized.	The most socially useful thing to learning in the modern world is the process of learning, a continuing openness to experience, an incorporation into oneself of the process of change.

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*Malcolm Knowles, The Adult Learner: A Neglected Species, Gulf Publishing Company, 1973, p. 95

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The Pitfalls

"The products of our educational system don't know how to learn--they only know how to be taught." [1, p. 173] Students are conditioned to be taught. They expect instructors to lecture to them and dictate requirements. For this reason, some students initially resist the training and development approach. When first asked to assess their own skills, they typically respond by saying, "You're the instructor, just tell me what I need to do." One pitfall is to yield to this request. Often times, yielding is easier, but doing so destroys the entire developmental training process.

A commitment to learning as a developmental process must be maintained. Not only must the communication skills program commit to this goal, but so must the entire MBA program. If within the MBA Program there still exists a pedagogical, Theory X philosophy, then the developmental training approach of the communication skills program will meet with resistance. So, another pitfall arises when these two programs work at cross purposes. To avoid this, both programs must work together to develop a common mission and support common goals.

During its first year, the pitfalls FAU's communication skills program encountered arose from the integrated nature of the program. Since students do not receive credit for their communication skills activities, the recommended ones get dropped when pressures from the credit courses begin to build. Another problem was that, for the most part, the integrated course assignments were too academic. Students perceived the instructor as the audience, and the purpose of the paper as to impress rather than to express. Closer collaboration on assignments may improve the latter problem while rewards need to be established in order to resolve the former one.

CONCLUSION

A firm basis exists for choosing a developmental training approach to the MBA Communication Skills Program. This paper presented its justification, outlined one university's program, and shared some of the benefits and pitfalls of such an approach.

APPENDIX A

COMMUNICATION SKILLS PROGRAM
WRITING EVALUATION GRID

Student's Name ______________________ SS# ______________

Assignment ______________________

Date ______________________

Evaluator ______________________

OVERALL EVALUATION

Development Required ___

Development Recommended ___

Development Exempt ___

	CONTENT	ORGANIZATION, RHETORICAL AND LOGICAL DEVELOPMENT	ORGANIZATION SENTENCE STRUCTURE
Accomplished:	A significant central idea clearly defined, and supported with concrete, substantial, and consistently relevant detail, appropriate to the reader's background.	Theme planned so that it progresses by clearly ordered and necessary stages, and developed with consistent attention to logic, proportion and emphasis; paragraphs coherent, unified and effectively developed; transitions between and within paragraphs explicit and effective.	Sentences skillfully constructed (unified coherent, forceful, effectively varied).
Acceptable:	Central idea apparent but trivial, or trite, or too general; supported with concrete detail, but detail that is occasionally repetitious, irrelevant, sketchy or inappropriate to the reader's background.	Plan and method of theme apparent but not consistently fulfilled; developed with occasional disproportion, inappropriate emphasis, or questionable logic; paragraphs unified, coherent, usually effective in their development; transitions between paragraphs and within paragraphs clear but abrupt, mechanical or monotonous.	Sentences correctly constructed but lacking distinction, occasionally wordy, or passive.
Focus Area:	Central idea lacking, or confused, or unsupported with concrete and relevant detail appropriate to reader's background.	Plan and purpose of theme not apparent or illogical; underdeveloped with irrelevance, redundancy, or inconsistency; paragraphs incoherent, not unified, or underdeveloped; transitions between and within paragraphs unclear or ineffective.	Sentences not unified--incoherent, fused, incomplete, monotonous, or simplistic. Sentence overly wordy or passive.

	WORD CHOICE	TONE	GRAMMAR/ PUNCTUATION/ SPELLING	FORMAT
Accomplished:	Is distinctive: fresh, precise, economical, and non-biased.	Promotes human relations by using positive words and sentences, appealing to the audience, and enhancing the writer's image.	Conforms to standards of grammar, punctuation, and spelling throughout the communication.	Follows contextual conventions; is attractive and consistent; highlights important ideas.
Acceptable:	Is appropriate: clear and idiomatic.	Does not call attention to itself.	Deviates only occasionally from standard grammar, punctuation and spelling.	Follows academic or business conventions; is clear.
Focus Area:	Is inappropriate: vague, unidiomatic, substandard, inflated, biased, jargonistic; overly technical.	Impedes human relations by being impolite, defensive, overbearing, placating, or subservient.	Deviates from standard grammar, punctuation, and spelling throughout the communication.	Does not follow academic or business conventions; is illegible, distracting, or unattractive.

APPENDIX B

INDIVIDUAL DEVELOPMENT PLAN

Student's Name: ____________________ **Social Security Number** __________

Developmental Objectives	Activities	Resources	Evaluation Criteria	Completion Date	Completion Sign-Off

Date Negotiated: __________

____
Director, Business Communications Skills Program

____
Student's Signature

REFERENCES

[1] Knowles, Malcolm, The Adult Learner: A Neglected Species, Gulf Publishing Company, 1973.

[2] Knowles, Malcolm, The Modern Practice of Adult Education, rev. ed., Association Press, 1980.

[3] Unix System V Writer's Workbench Software, AT&T, Greensboro, NC 27420.

[4] BLS Inc. Tutorsystems Courseware, Career English Series, Wilmington, DE 19810.

[5] McGregor, Douglas, The Human Side of Enterprise, McGraw-Hill, 1960.

PROGRAM IN BUSINESS COMMUNICATION AT THE UNIVERSITY OF TEXAS AT AUSTIN A PRE-TEST-POST-TEST AND EXPERIMENTAL-CONTROL GROUP ANALYSIS OF THE PERSONNEL DEPARTMENT'S TRAINING

James D. Bell, Southwest Texas State University
Deborah Kerr, Management Consultant

ABSTRACT

Other than end-of-program or course evaluations, consultants and teachers rarely evaluate instruction. This study, used pre-test/post-tests and experimental/control groups to evaluate four Business Communication Skills Programs conducted with employees at The University of Texas at Austin. Results evaluating the programs indicated that employees liked, learned, and used the skills and principles taught. Further analysis revealed that the programs affect the "bottom line" and save time and money.

INTRODUCTION

As job markets become more competitive, recruiting, hiring, and evaluating efficient employees becomes increasingly difficult. Even more challenging is retaining and training those employees as new technology, new processes, and new management systems are adopted. Either new workers must be hired who are already trained for the new situation and who replace untrained, old-time, and perhaps older employees; or more acceptably, as IBM and Hewlett-Packard demonstrate, workers are educated in the most efficient methods for using these new tools.

As a result of these humane programs, and as a result of the recognition that retraining is economically superior to and socially more acceptable than replacing experienced workers with new workers whenever technology changes, the use of in-house and consultant training has increased dramatically.

> Some large utility companies report as many as 500 full time training personnel on their payrolls. It is no surprise that Syracuse University reports that half the graduates of its graduate program in training go to work for corporations [11, p. 1].

Training program expansion is found not only in the private but also in the public sector. During the last two years, The University of Texas at Austin, which employs five professional trainers in its personnel office, spent over $91,000 to offer courses to improve the skills of its support and secretarial staff alone.

But does training work? How good is the training and how effective is it? Is the money well-spent? Is there an adequate return on investment? Does the training program result in employees acquiring and using new and marketable skills; the kind of skills the organization will need in the next several years? When considering evaluation, these questions should be asked. However, recent reviews of literature in training and development coupled with survey information, indicate that although training program evaluation is often discussed, little evaluation is ever actually done.

Literature Review

Smeltzer reported that less than 12% of 285 companies studied evaluated the results of supervisory training programs in management [14, pp. 6-8].

(Companies may evaluate programs by using a "happiness index"--the participants' reactions to the training and the materials received at the end of the course.)

Clement [6, pp. 9-12] studied the evaluation of management training programs both for pre-1970 and 1970-1980 and reported that evaluation practices were weak before 1970 and have not improved much in the following decade as two-thirds of all current post-training employ no control group...and studies employing no control group and only a post-training measure tell essentially nothing about the effectiveness of his or her course. Clement and Walker [7, pp. 9-12] further indicated that the outlook for the 1980's shows that evaluation may continue to play a lesser role in management training as a survey of 2,000 training professionals reported that "Although training functions in their organizations were growing in terms of breadth and depth of services provided, this growth meant they were spending more time on management activities such as planning and organizing, and less time on the more traditional training activities, including evaluation."

Apparently, organizational management is demanding a wider array of programs but not necessarily demanding a concomitant determination of their worth to the organization. The danger is the potential of growth in the training function without accountability--and ultimately a proliferation of ineffective programs or the perception (in lean times) that training and development programs are superfluous.

Results of Clement's study are supported by a survey of a professional organization of trainers [13]. Ninety percent of the trainers surveyed stated that, while they believe in evaluations, they don't use them because evaluations are not required by most of the firms for which they work. Many trainers reported that the managers who hire them actually discourage spending time to evaluate when they say: "We wouldn't have hired you if we didn't think you were effective." Carlisle [4, pp. 37-39], discussing a lack of management support for evaluation, also presents the "we-know-you're-good response" as a reason for not evaluating programs. Blumenfeld and Holland [3, p. 638] sum up management's attitude toward evaluation: "Management is reluctant to `waste time' testing something that it has convinced itself is good."

Further, the results of evaluations of training are rarely published and those that are [10, pp. 32-37] tend to present hypothetical or extrapolated bottom line evaluations.

During pressing economic times when line items perceived as less cost efficient are cut from the budget, training programs are cut, too--unless they are seen as added value to the organization. Historically, employee development courses and workshops have *not* been considered a business necessity in good times or bad, but *only* acceptable in good times.

If these attitudes toward evaluation--little support and no insistence--indicate the prevailing attitudes in the business community, it is no wonder trainers do not evaluate programs. And it is no wonder that managers are quick to conclude that training programs aren't necessary in weak economic business cycles.

To determine whether or not funding for a training program should be continued, managers must see evidence that employee education and training are effective in producing significant improvements in productivity or quality of output.

In past years, evaluation has been discussed, but has this discussion led to the implementation of effective evaluation of programs? The sparsity of the literature indicates, no! Some articles have suggested plans and recommended designs for evaluation [6, pp. 9-14]. Del Gazio [8, pp. 30-31] suggests four levels of evaluation of employee training:

Level One: Happiness Index (Did participants *like* the program?)
Level Two: Learning Index (Did participants *learn* the skills taught?)
Level Three: Practical Application Index (Did participants *use* newly learned skills on the job?)
Level Four: Bottom Line Index (Was the training *productive* or cost effective?)

Del Gazio states that the third and fourth levels are the most difficult to quantify and therefore are rarely measured. The sparseness of specific and real evaluation models coupled with the fact that no training program at The University of Texas at Austin had been evaluated beyond the happiness index led to the adoption of Del Gazio's four level model as the design for the Business Communication Skills training program. Readers are encouraged to evaluate, adopt, modify, and apply the procedure(s) and methods that follow to test their own internal and external training programs.

---

*Readers will be interested to learn that the costs of this pre-test post-test control group evaluation were kept under $20 (not including salaries).

THE TRAINING PROGRAM

Because of the strong local job market (3.9% unemployment reported for May, 1985), The University of Texas at Austin has difficulty attracting, hiring, and retaining a skilled clerical staff. Thus, in 1981, four courses in clerical training (Business Communication Skills, and three levels of applied keyboarding) were developed and taught by faculty members from the College of Business.

In the keyboarding courses, five-minute "writings" were used in pre-tests and post-tests as the basis for evaluating the effectiveness of the program. In the Business Communication Skills (BCS) class, only end-of-course happiness ("did you like...") evaluation measures were used. No follow-up studies determining the effectiveness of the courses were employed. However, during Spring and Fall, 1984, this impact evaluation study was conducted to measure behavioral change: that is whether or not skills learned in the Business Communication Skills (BCS) course transferred from the classroom to the work setting. For comparison of participating and non-participating staff, a matched control group was employed using identical job classifications.

To enable other trainers to adopt, replicate, or modify the existing study, a description of the program (course design; goals and objectives), will follow along with a discussion of the experimental design, instruments, method of evaluation, results, implications and recommendations.

THE COURSE MODEL

The BCS Program

In 1982-3, a detailed task analysis of employees at the Senior Secretary I and II levels (high level support staff personnel) was completed and validated by the mid-level managers working with them. The task analysis identified several complex and communication related duties performed by employees working in these specific job classifications. In turn, this task analysis led to the development and structure of the BCS training program. The program decomposition models are found in the Appendix, Exhibits 1 and 2. The models indicate principles and techniques of communication relating to writing (letters, memos, reports), speaking (public speaking, dictation, and telephone usage), self-management (listening, time management, planning, decision making), and managing others (selected supervisory techniques). These principles formed the integral components for the program.*

The program was described and advertised in an internal house organ (The Personnel-O-Gram), and a sign-up form was included. A $40 charge was assessed each participant's department to cover a portion of the instructor stipend and the duplication of course materials. Between 1982 and 1984, the BCS Program was offered five times and class size increased from 9 in 1982 to 29 in Fall,'84.

The 30 hour BCS program met two hours per day, three times each week, for five weeks. The program was held during normal working hours and participants were released from work to attend the class. Spatafore [15, p.28] urges support for this practice:

> it is a myth to believe that any employee is too valuable to the job to be away from his desk during business hours...few employees are truly indispensable every working minute. To believe that an employee should always be at his desk is a short-term viewpoint. Enabling an employee to bring new ideas and methods to the company through schooling can reap great benefits.

The BCS Participants

Eighty-six of ninety-one participants were women. Age ranged from 20 to 61 years, with 31 being the mean age. Sixty percent were Anglo, thirty percent Hispanic, five percent Black, and five percent Oriental. Seventy-five percent were classified as Senior Secretary I, and twenty-five percent as Senior Secretary II (the higher level). Fifty-two percent of the BCS program participants were self-selected, forty-five percent were assigned to the course by their supervisor(s), and three percent enrolled in the program as a result of a recommendation from a colleague.

Course Methodology

As in many training programs, participants heard lectures and viewed films. However, because these training techniques involve only passive behavior, they were minimized. Specifically, the goal of the program was to not only produce knowledge gains, but also to enable participants to write, speak, and supervise better--in other words to change work behavior. Hence, the principal mode of instruction was the case study; the principal method of learning involved working in small groups of five to seven employees. The following exhibit represents the teaching/learning approach.

---

*The BCS training program focused mainly on improving the formal communication skills and supervisory skills of the participants. It was believed that secretaries would not only be better supervisors, but also be more easily and effectively supervised since, during the training program, they discussed supervisory techniques. So, while many Senior Secretaries are not responsible for managing staffs, they became aware of the challenges of supervision and thus may have been able to support their managers better.

EXHIBIT 3

Typical Course Segment Using the Environmental Mode*

Time Spent (minutes)	Activities	Goals
15	lecture	teach specific principles of communication
2-5	present a case or introduce a specific piece of correspondence from a university department; answer questions	form a solution to the case or revise the correspondence
5	individual critique or assessment	evaluate the presence of communication principles; outline suggested revisions
1	form groups	synergism
10	group ideas exchange discussion	sharing of ideas leads to better solutions
5	presentation	one member in each group discusses the proposed solution to the case or the revision
5	group revisions were sometimes collected and returned to the specific department which originated the correspondence or sometimes the instructor collected the revisions and a new version was retyped and both (old and new) versions used to introduce the next day's topic	

---

*This teaching approach, labeled the "environmental mode," enables participants to receive immediate feedback on ideas they felt could be implemented on the job. Further, results of over 200 experimental studies on the teaching of writing [9, pp. 1-26] indicated

The environmental mode of teaching was used starting with the second class meeting after participants had been introduced to basic prnciples of written communication. The problem solving/revision/case approach to learning was selected based on studies which found the case study the most effective approach for the development of problem solving skills. [6, pp. 495-510] The closer the training situation matches the participants' work situation, the more effective the training will be.

Did this approach to training work? Del Gaizo's four levels of evaluation were used as the basis for evaluating the program:

Did the employees like the program?
Did the employees learn the skills taught?
Did the employees use the newly learned skills on the job?
Does the training effect the bottom line?

LEVELS OF TRAINING

Level One: Did the employees like the training program?

As previously noted, a "happiness index" was used to evaluate past BCS courses. Results of evaluations indicated that employees like the course and felt that it not only was appropriately instructed, but also related to their jobs.

When asked if the course related to their job, one hundred percent of participants said yes. When rating the importance of the course in performing their jobs, the mean response from ninety-one participants was 4.60 (where on a 5 point scale, 5 was extremely important, 3 was fairly important, and 1 was not important.) Responses rating teaching methods and teaching techniques resulted in a mean response of 4.86 (where on a 5 point scale 5 was very effective, 3 was occasionally not effective, and 1 was ineffective. Effectiveness of course objectives, course organization, course materials, and instructor's response to participants were consistently rated at 4.56 (where 5 was excellent).

Level Two: Did the employees learn the skills taught?

To determine the effectiveness of the BCS program itself, whether or not employees learned the skills--two writing cases were constructed to measure achievement in writing.

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that in teaching writing principles, on pre-to-post measures, the "environmental mode" is over four times more effective than just lecturing, and three times more effective than unstructured group activities. Thus, the environmental mode incorporates clear behavioral objectives. Its carefully planned and structured activities and concepts covered in class are related to tasks performed at work. And crucially: it involves high levels of participant interaction.

Writing sample cases/assignments were content-validated by two professors from the college of business and one personnel specialist as being equivalent in difficulty and representative of communication principles taught in BCS, and skills used in daily work tasks. For the fifth BCS class (n=29), writing assignments were administered on the first and last day of the course. To reduce bias and limit extraneous factors effecting results, participants were not informed of the purpose of the assignment (called "a sample") nor were they told that a post-BCS sample would be taken. The assignments included identical written instructions, and all were written in class under a strict 15 minute time limit. Assignments were collected and graded by an outside evaluator and by the instructor. In addition, as a test of rater reliability, a random sample of graded assignments was copied with all grades and marks removed and were rated by two professors not participating in the study. In this analysis, outside raters identified every major and minor error or success on papers. Thus, the inter-rater reliability rating was shown to be consistent with the grades and comments on the papers.

Assignments were graded and returned to BCS participants with detailed written comments on the second day of class. On the last day of class an equivalent writing assignment was administered. Statistical analysis of variance results of the pre-and post-test results are as follows:

```
VARIABLE   NUMBER              STANDARD   STANDARD   *(DIFFERENCE) STANDARD   STANDARD   *       2-TAIL *    T    DEGREES OF 2-TAIL
          OF CASES     MEAN   DEVIATION    ERROR     *     MEAN    DEVIATION    ERROR    * CORR.  PROB. *  VALUE    FREEDOM  PROB.
-----------------------------------------------------------------------------------------------------------------------------------
PRE                                                  *                                   *              *
                      6.5595     1.647      .359     *                                   *              *
             21                                      *   -1.2262     2.365       .516    *  .283   .378 *  -2.38       20      .028
                      7.7857     2.064      .450     *                                   *              *
POST                                                 *                                   *              *
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```

- -

The analysis indicates that writing on job-related tasks improved* significantly (0.28 level of significance).

The results of the learning portion of the study are corroborated by a similar study evaluating instruction of juniors and senior students at the College of Business at The University of Texas at Austin. [1, pp. 1-31]

In addition to written communication skills, oral communication skills were evaluated on the basis of two in-class presentations. Using rating scales to evaluate the presentations, pre and post-test analysis revealed a twenty percent improvement.

Also evaluated were dictation skills, using a case study and then giving participants five minutes to outline a response. Participants then dictated messages into a tape recorder.

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*Writing appropriate beginnings, supportive sections, and clear closings necessary to achieve one's purpose. Improvement also included reducing errors such as incomplete sentences, poor word choice, and errors in spelling and punctuation.

Analysis based on a twenty item check-list indicated performance comparable to a senior course in Managerial Communication, where the average score on a dictation assignment was a grade of "B."

The analysis at Level Two indicated, then, that participants learned to apply written communicaton skills and improved oral communication and dictation skills.

Level Three: Did the employees use the newly learned skills on the job?

To assess the use of the newly-learned skills on the job, a post-test control group design was used. During Spring, 1984, the sixty-two employees from the first four BCS classes were pooled to form the experimental group. A matched, randomly selected thirty-nine member control group of employees was chosen from identical job classifications.*

Other analysis comparing the two groups revealed similar ages, years of work experience, and years of university employment. A control group was randomly selected from secretaries who were in identical job classifications but who had not taken the course. This is an additional check on the transfer of skills learned in BCS to the job. The large control group sample, the randomization process and the standard job qualifications mandated by the university for employees in equivalent positions statistically makes the groups comparable in all areas except that the control group did not take the BCS course. To determine if the communication-related skills emphasized in the BCS class were used on the job, a five page survey containing twenty-three multiple-answer questions was created. This survey administered to the experimental groups was expanded to eight pages (forty-three questions) as a check on the reliability of "happiness index" evaluations from previous BCS Programs.

Survey development

As noted, the BCS instructor working with a management development specialist for the University of Texas Personnel department developed the two forms of the survey. To insure reliable and valid responses, a professor from the Educational Psychology Department performed a content analysis on all questions. This analysis led to two revisions.

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*The University published standard job qualifications for all positions. Because all employees in Senior Level I and II have passed a series of tests, have been interviewed by both members of the Personnel Department and specific Departments to which they have been assigned, and have met specific qualifications for employment as stated in published job descriptions, it is assumed that individuals hired as Senior Secretaries show no systematic, significant differences in job skills or responsibilites before completing the Business Communication Skills course.

As a further check on the reliability and validity of the survey, both surveys were administered to four university employees who were not members of the experimental or control groups but who worked in similar job classifications. The analysis and pilot testing resulted in final revisions. The final survey package contained identical cover letters along with color-coded and numbered surveys. Surveys were mailed to both groups on the same day using the in-house mail system.

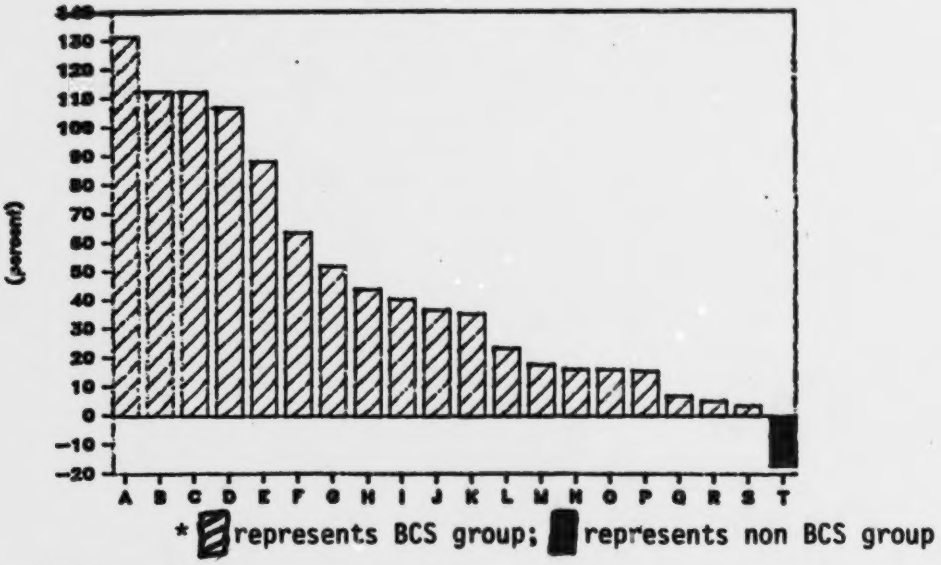
Survey Reponse Rates

The mailing resulted in a 70% response rate from each group. Ten days after the first mailing, non-respondents were sent a follow-up letter and another copy of the survey. The follow up resulted in the response rate increasing to 90% for each group, and a third follow-up sent one week later resulted in final response rates of 92.5% (n=50/54) from the experimental group* and a 94.1% (n=32/34 from the control group.*

Responses were mathematically equalized to account for the unequal n's of the groups. The following work related comparisions resulted.

Survey Results

GRAPH 1



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*In the BCS group of sixty-two completers, four workers had resigned, four were on leave-of-absence status, and four did not return the survey. In the non-BCS group of thirty-nine, three workers had resigned, two were on a leave of absence, and two did not return the survey.

TABLE 1

(percent)

	Duties:	Experimental Group a	Control Group b	Ratio (a-b)/b
A	Bookkeeping/Accounting	44	19	131.6
B	Transcribe from dictation	34	16	112.5
C	Make travel arrangements	34	16	112.5
D	Supervise employees	58	28	107.1
E	Give directions, demostrate equipment	64	34	88.2
F	Write letters	72	44	63.6
G	Computer work (entering, retrieving)	76	50	52.0
H	Write memos	72	50	44.0
I	Schedule appointments	52	37	40.5
J	Attend meetings/record minutes	26	19	36.8
K	Record sick leave/absences	42	31	35.5
L	Collect/check time sheets	42	34	23.5
M	Distribute mail	66	56	17.9
N	Answer phone	94	81	16.0
O	Maintain supplies	58	50	16.0
P	File	90	78	15.4
Q	Photocopy	94	88	6.8
R	Perform receptionist duties	62	59	5.1
S	Type	90	87	3.4
T	Other	34	41	-17.1

As the graph and the table indicate, in nearly all categories (excluding "other" which, when examined, identified routine job duties not related to communication) there is a significant difference in job responsibilities and skills between those who participated and those who did not participate in the BCS course. Also as the tables and summarized results indicate, differences in skill breadth and depth occasionally exceed one hundred percent in the "supervise employees" category. Communication objectives of the BCS Program were therefore achieved as the table below demonstrates.

TABLE 2

SKILL	In BCS Group	In Non-BCS Group	Ratio
Transcribe from dictation	34	16	112.5%
Supervise employees	58	28	107.1%
Give directions, demonstrate equipment	64	34	88.2%
Write letters	72	44	63.6%
Write memos	72	50	44.0%

Participants in the BCS groups write more letters and memos, practice oral communication skills as they give direction and demonstrate equipment, more often supervise co-workers, and use transcription and dictation skills.

BEST COPY AVAILABLE

Further analysis of the survey indicated that BCS participants make more word, sentence, and paragraph revisions on material typed for others (95.9% BCS versus 75.8% non BCS); and 41% of the BCS participants make these revisions without conferring with the supervisor while only 34% in the control group reported this response. Also, 32.6% of the BCS participants actually compose reports, compared to 13.7% of the control group.

Surveyed from 3 to 23 months after completing the course, responses revealed that 93% of the BCS participants felt that the course was important to performing their jobs and 92% felt that the course helped them perform their jobs more efficiently, versus 95% who felt so on the last day of instruction.

Finally, during the BCS course participants were given a 60 page resource book containing material which covered writing, speaking, managing and dictating. Questionnaire results indicated 46 of 50 BCS participants kept the book and 37 of the 50 indicated that they used this material while at work. One-half of those respondents reported using the materials more than once each week and the other half reported monthly use. (Giving employees reference material definitely adds to the effectiveness of the program.)

Level Four. Does the Training Effect the Bottom Line?

Measuring the bottom-line effectiveness of training programs may be the most difficult and elusive task. This requires certain "...observable, quantifiable, tangible, and verifiable facts that show specific profit or performance results." [8, p. 31] While this direct approach to evaluation is well suited to measuring the results of training programs in industrial or goods producing/supplying segments of the society, it breaks down when applied to service operations in which the input is heterogeneous, the quality of service is important (at the same time it is impossible to examine each instance of service delivery) the output or product is intangible, and the assignment of dollar value to the product is subjective. When considering the bottom line as a basis for performance evaluation, the results will be more acceptable when the following conditions exist:

1. The discretion of the manager is limited.
2. The number and degree of either uncontrollable or uncertain variables are limited.
3. The time span of the manager's job is relatively short.

None of these conditions are typically present in the training and development setting. For example, randomly selecting members of a sales staff, training them in new sales techniques, and then monitoring sales performance and comparing sales performance with a randomly selected control group results in a quick and dirty measurement of bottom-line cost/benefit. But the perceived benefit of training (increased sales) may be entirely due to unmeasured extraneous variables, such as increased manager attention and promotion opportunities, higher morale, etc. Further, when forms of less specific job performance are evaluated (writing letters, reports, giving presentations, instructing others), bottom line measurement becomes even more difficult.

To measure the bottom line benefits of the BCS program, it was initially felt that comparing absenteeism, performance appraisals, designing and evaluating on-the-job writing, and comparing promotions of the experimental group with those of the control group would be a valid comparison. But these aspects were, in the end, not measured for several reasons among which were that a uniform institutional policy for absenteeism did not exist, performance appraisals were not uniform across various departments, and rater reliability of performance can vary and be suspect. Further, requiring participants to write specific letters and memos for evaluation because of its highly non-routine nature was not employed because of a large potential for bias. Because receiving promotions was not an objective of the program, it too was not chosen as an analysis of benefit. Because of the lack of specific dollar value that can be assigned to communication sent or received, evaluating in a meaningful way the bottom-line results of specific letters, memos, reports, was not possible.

In spite of the difficulties, however, it was possible to compare effects in the following areas:

efficient use of time
increased revisions completed (without comsulting supervisor)
increased supervisory responsibilities
increase in duties assigned and/or requested
improved relationships with supervisors

Efficient Use of Time

Evaluation results on validated tests of written communication revealed that post-program sample letters significantly improved (.028). Because a strict 15 minute limit was imposed on BCS participants, it is suggested that, given the same amount of time at work, improved messages are produced. Thus, employees given instruction in Business Communication Skills make better use of their time when composing messages. (A study evaluating an experimental and a control group with time and quality as variables could strengthen bottom line analysis as salary comparisons could be done.)

Increased Revisions Completed

When the BCS group was compared with the control group, survey results reported that the BCS group makes 20.1 percent more revisions on material that is typed for others (usually the supervisor's work). And 41 percent of all revisions made by the BCS trained group are made without consulting with the supervisor. Apparently, the increase in communication skills saves the supervisor time and results in improved correspondence. Further analysis revealed that respondents work from handwritten copy by a 2 to 1 margin. As noted, more BCS participants compose and revise routine written communication without direct supervision than do those in the control group. For the office or group manager this means additional discretionary time for planning and control functions and thus more time to respond to non-routine situations that demand management involvement. When managers channel their knowledge and experience in this way rather than personally doing all routine office work, the results translate to more efficient use of personnel dollars. Additionally, although respondents were not polled as to their present use of dictation skills, the BCS group was given instruction and practice in using dictation (as a means of increasing productivity). The benefits derived from this instruction can be inferred.

Increase in responsibilities

Before the study began, a list of standard duties was developed from lists of daily tasks kept by staff members holding positions similar to the control and experimental groups at this University. This list was included on the questionnaire and respondents checked the duties that they perform regularly. More participants who took the BCS program indicated that they performed more of the duties than did control group participants. For these matched groups, there is evidence that BCS participants are performing tasks that in the control group are either not performed or are performed by other staff members. In either case the BCS participants are not only using few personnel hours by performing the tasks themselves, they are saving the organization money that may in the control group setting be spent on additional salaries and benefits. Additional results from a comparison of surveys indicated that BCS participants supervise other employees 108 percent more than an equivalent control group. This supervision results in an increase in the work performed in each office because it enables the manager to accomplish other tasks. In addition, one-half of the BCS completers presently perform work that they did not perform before taking the class. Samples of changes in duties include:

> "I now do extensive work on the computer;
> I compiled a solicitation resource notebook, and I have taken on all solicitation efforts for the college;
> I take the initiative on jobs that need to get done;
> I compose more letters on my own;
> I now take minutes of meetings;
> I have become the person people come to with questions and problems about the computer system;
> I edit all my bosses' letters."

For a program to be fully successful, the work environment must be conducive to change, and supervisors must support the employee. At the conclusion of the BCS class, participants are encouraged to write a memo to their supervisors to thank him/her for his support and for the opportunity to attend the class. Completers also report what they have learned or now can do. In this memo, new skills and knowledge are reported. This feedback typically results in employees receiving new duties and responsibilities. Forty-three percent of employees who reported changes in duties stated that the new duties became part of their jobs due to a personal request; and 57 percent reported that the new duties were assigned by the supervisor.

Improved Relationships With the Supervisors

When interpersonal communication is relatively conflict-free, the result is typically reduced misunderstanding of duties and/or assignments, reduced redundancy resulting from miscommunication, and more accurate perception of performance goals by the manager and the staff member, all of which result in increased efficiency. Sixty percent of the BCS group felt that their relationship with the supervisor improved as a result of the class. And the remainder reported that the relationship stayed the same. No one reported that relationships worsened. Perhaps improvement can be attributed to the employees' studying supervision and accepting responsibility in the office.

Implications

Although specific to a university campus environment, this study shows, first, that the efficiency of a training program can be measured; and second, that such training does produce significant results in the work place.

One point of note is that when selecting employees to attend inhouse training programs self-selection may not alway yield the best results. For example, in the present study, members of the control group rated their communicative skills (writing, speaking, dictating, and listening) higher than did the BCS participants. Since the noncompleters had no formal basis of comparison, the reliability of this self-rating is suspect. Further, the results of the pre-test results indicate that BCS participants enter the class with weak skills and leave with skills that are significantly improved. Leaving training to employee preference and self-selection or asking an employee if he or she "would like to take a course in communication skills" may be a counter-productive method of course selection because employees tend to overestimate their skills and abilities.

The study was conducted to evaluate a training program on four levels. This article demonstrates that in-depth evaluation is possible and necessary, serves as a model for further evaluations, and encourages testers, developers, and managers to evaluate their programs.

Currently few organizations have any idea what they are getting for all the money and effort spent on training. The same care that is currently given to analyzing marketing techniques, production methods, accounting systems and benefits packages must also be given to analyzing training programs. Without such scrutiny, managers are playing a costly game of chance with their training budgets.

Exhibit 1

Viewpoint: The diagram is drawn from a staff member's viewpoint

Purpose: The purpose is to illustrate the Business Communication Skills training program.

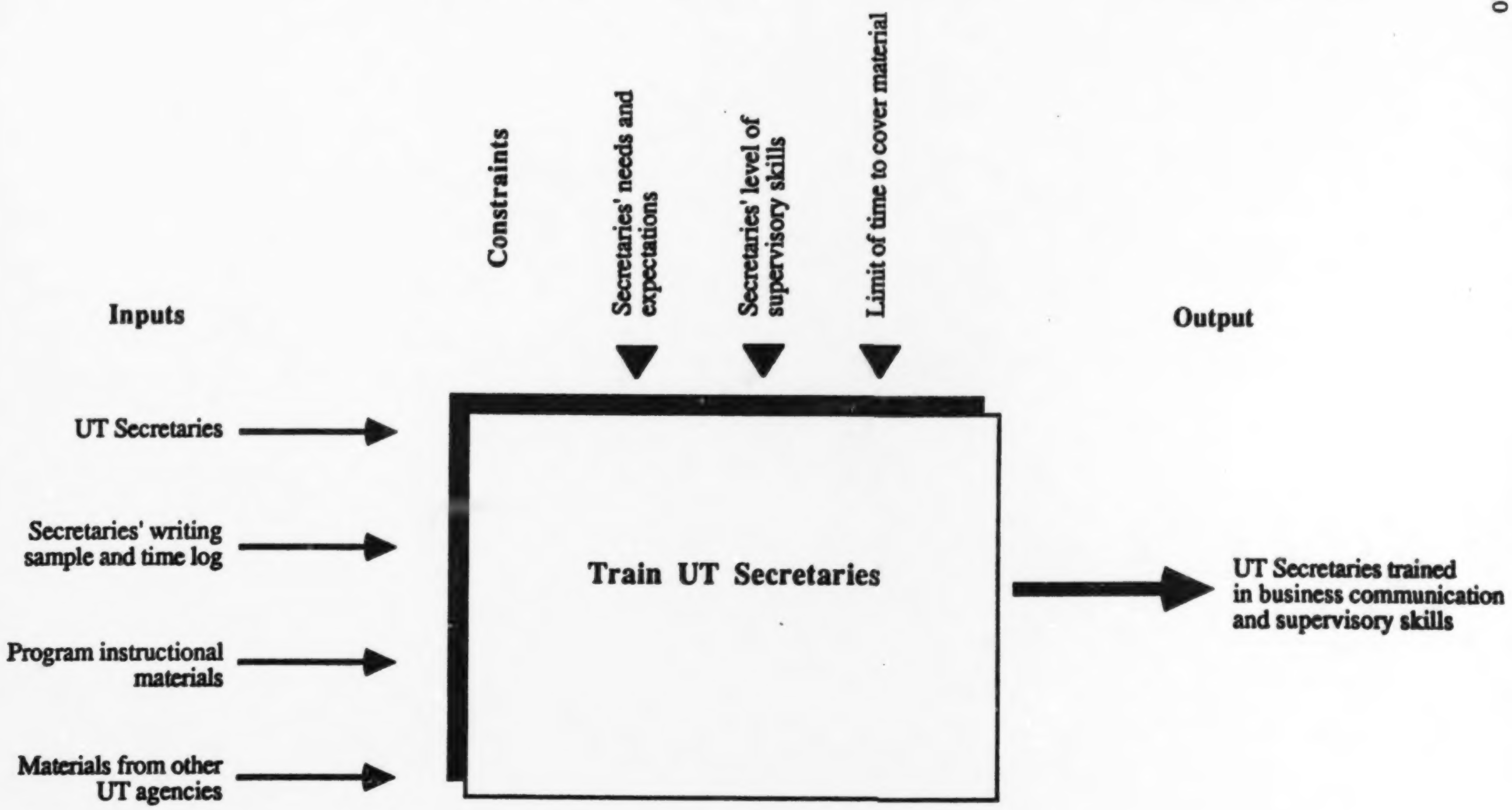
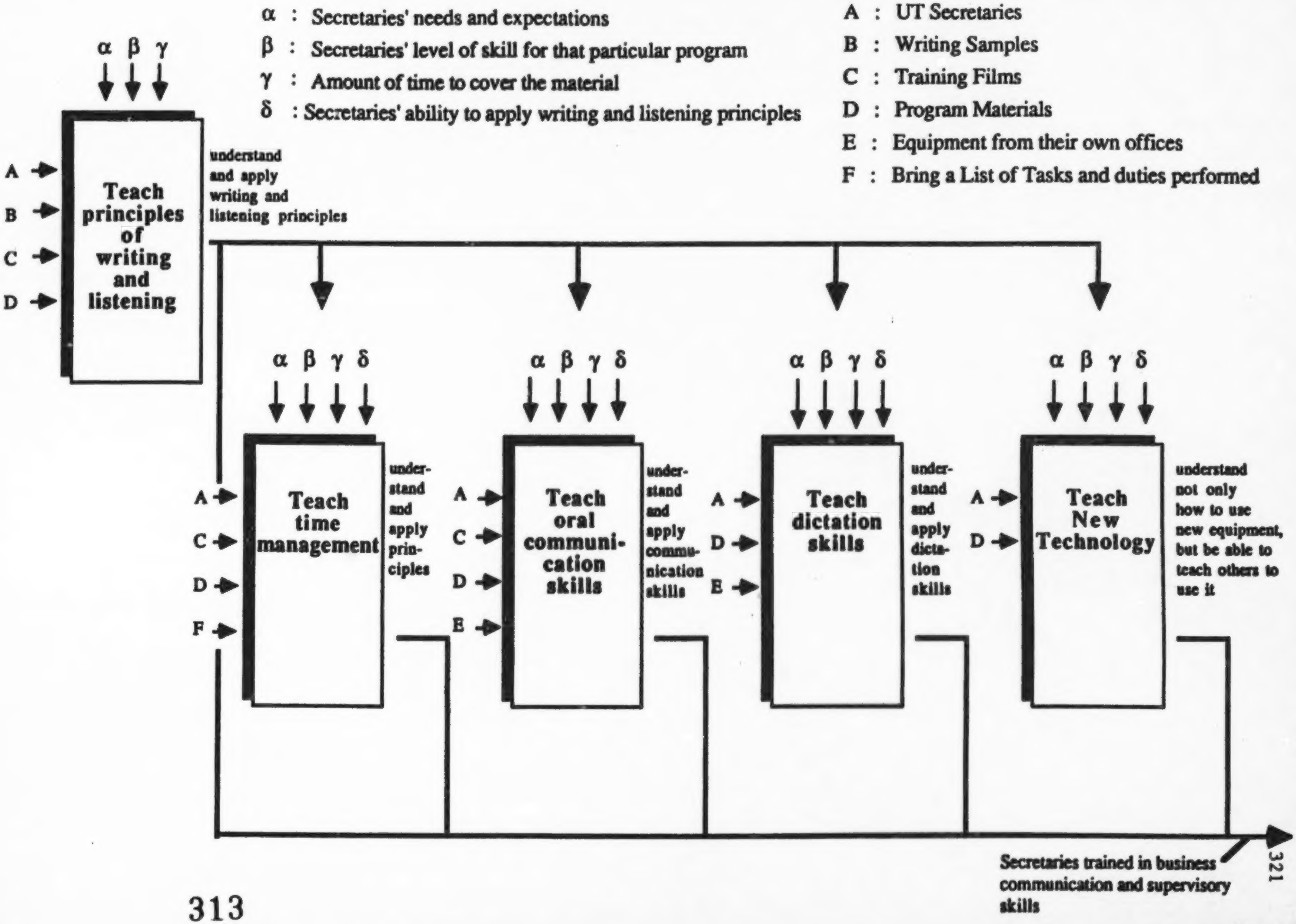

Constraints
Secretaries' needs and expectations
Secretaries' level of supervisory skills
Limit of time to cover material
Inputs
UT Secretaries
Secretaries' writing sample and time log
Program instructional materials
Materials from other UT agencies
Train UT Secretaries
Output
UT Secretaries trained in business communication and supervisory skills

Exhibit 2


α : Secretaries' needs and expectations
β : Secretaries' level of skill for that particular program
γ : Amount of time to cover the material
δ : Secretaries' ability to apply writing and listening principles
A : UT Secretaries
B : Writing Samples
C : Training Films
D : Program Materials
E : Equipment from their own offices
F : Bring a List of Tasks and duties performed
α β γ
A
B
C
D
Teach principles of writing and listening
understand and apply writing and listening principles
α β γ δ
A
C
D
F
Teach time management
under-stand and apply prin-ciples
α β γ δ
A
C
D
E
Teach oral communi-cation skills
under-stand and apply commu-nication skills
α β γ δ
A
D
E
Teach dictation skills
under-stand and apply dicta-tion skills
α β γ δ
A
D
Teach New Technology
understand not only how to use new equipment, but be able to teach others to use it
Secretaries trained in business communication and supervisory skills

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